

REMEDIAL SITE ASSESSMENT DECISION - EPA REGION 1

Site Name: Roy Bros Haulers EPA ID#: MAD009870643

Alias Site Names: _____

City: Billerica County or Parish: _____ State: MA

Refer to Report Dated: 7-11-96 Report type: SIP

Report developed by: RFW/START

DECISION:

1. Further Remedial Site Assessment under CERCLA (Superfund) is not required because:

1a. Site does not qualify for further remedial site assessment under CERCLA (Site Evaluation Accomplished - SEA)

1b. Site may qualify for further action, but is deferred to:

RCRA
NRC

2. Further Assessment Needed Under CERCLA:

2a. (optional) Priority: Higher Lower

2b. Activity Type:

PA
SI

ESI
HRS evaluation

Other: _____

DISCUSSION/RATIONALE:

Surface Water contaminations and impacted receptors.

Ground Water contamination and potential receptors

Report Reviewed and Approved by: Don Smith

Signature: _____

Date: 7-15-96

Site Decision Made by: Don Smith

Signature: _____

Date: 7-15-96



**FINAL SITE INSPECTION PRIORITIZATION REPORT
FOR
ROY BROS HAULERS
BILLERICA, MASSACHUSETTS**

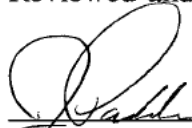
**CERCLIS No. MAD009870643
TDD No. 95-06-0006**

Prepared by:

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Superfund Technical Assessment and Response Team (START)
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11 July 1996

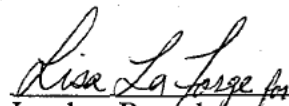
Region I START
Reviewed and Approved:



Jack Padden
Site Leader

7/11/96

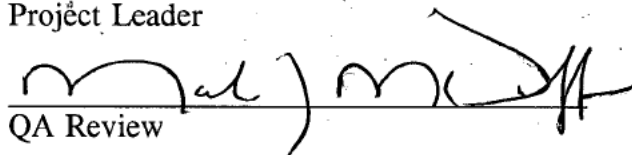
Date



Jocelyn Boesch
Project Leader

7/11/96

Date



QA Review

7/11/96

Date

Work Order No. 11098-011-001-1055-70

DISCLAIMER

This report was prepared solely for the use and benefit of the U.S. Environmental Protection Agency (EPA-New England), Office of Site Remediation and Restoration for the specific purposes set forth in the contract between the EPA-New England and the Roy F. Weston, Inc. (WESTON®), Superfund Technical Assessment and Response Team (START). Professional services performed and reports generated by START have been prepared for EPA-New England purposes as described in the START contract. The information, statements, and conclusions contained in the report were prepared in accordance with the statement of work, and contract terms and conditions. The report may be subject to differing interpretations or misinterpretation by third parties who did not participate in the planning, research or consultation processes. Any use of this document or the information contained herein by persons or entities other than the EPA-New England shall be at the sole risk and liability of said person or entity. START, therefore, expressly disclaims any liability to persons other than the EPA-New England who may use or rely upon this report in any way or for any purpose.

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INTRODUCTION

The Roy F. Weston, Inc. (WESTON®) Superfund Technical Assessment and Response Team (START) was requested by the U.S. Environmental Protection Agency (EPA-New England), Office of Site Remediation and Restoration to perform a Site Inspection Prioritization (SIP) of the Roy Bros Haulers property at 764 Boston Road in Billerica, Massachusetts. Tasks were conducted in accordance with the Site Inspection Prioritization scope of work and technical specifications provided by the EPA-New England. A Screening Site Inspection (SSI) Report for the Roy Bros Haulers property was prepared by the NUS Corporation Field Investigation Team (NUS/FIT) on 2 March 1988. The SSI determined that contaminants were released to the environment from on-site processes [1, pp. 1-2]. On the basis of the information provided in the SI report, the Roy Bros Haulers Site Inspection Prioritization was initiated.

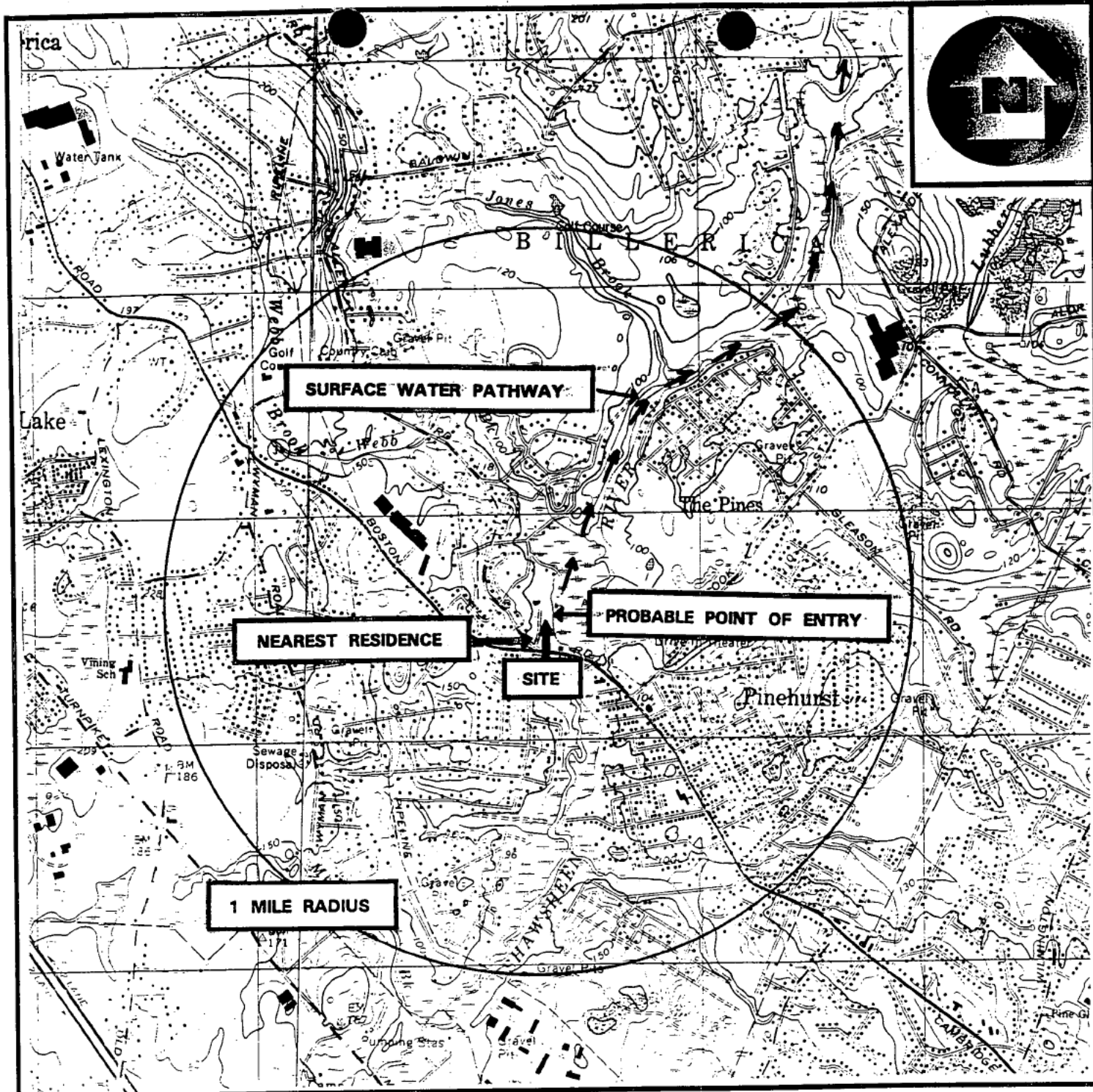
Background information used in the generation of this report was obtained through file searches conducted at the EPA-New England, Massachusetts Department of Environmental Protection, telephone interviews with town officials, conversations with persons knowledgeable of the Roy Bros Haulers property and conversations with other Federal, State, and local agencies.

This package follows the guidelines developed under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), as amended, commonly referred to as Superfund. However, these documents do not necessarily fulfill the requirements of other EPA-New England regulations such as those under the Resource Conservation and Recovery Act (RCRA) or other Federal, State, or local regulations. SIPs are intended to provide a preliminary screening of sites to facilitate EPA's assignment of site priorities. They are limited efforts and are not intended to supersede more detailed investigations.

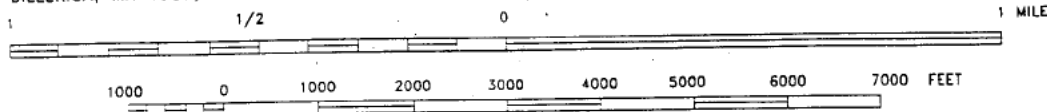
SITE DESCRIPTION

The Roy Bros Haulers (Roy Bros) property is located at 764 Boston Road in Billerica, Middlesex County, Massachusetts at latitude 42°32'06" north and longitude 71°14'09.5" west. The Roy Bros property consists of two parcels: Billerica Tax Assessor's Map parcels 25 and 217 on plate 90 (Figures 1 and 2) [50].

Roy Bros is owned by Messrs. Leo, Arthur, and Maurice Roy. The 4.4-acre property consists of an active chemical hauling operation; sparsely vegetated areas of former hazardous waste disposal and burn areas; and tanker and scrap storage locations. One building is located on the property [2, pp. 12-14].



BASE MAP IS A PORTION OF THE FOLLOWING 7.5 X 15' U.S.G.S. QUADRANGLE(S):
 BILLERICA, MA 1987; READING, MA 1987



QUADRANGLE LOCATION

LOCATION MAP

ROY BROS HAULERS
 764 BOSTON ROAD
 BILLERICA, MASSACHUSETTS



REGION I SUPERFUND TECHNICAL ASSESSMENT AND RESPONSE TEAM

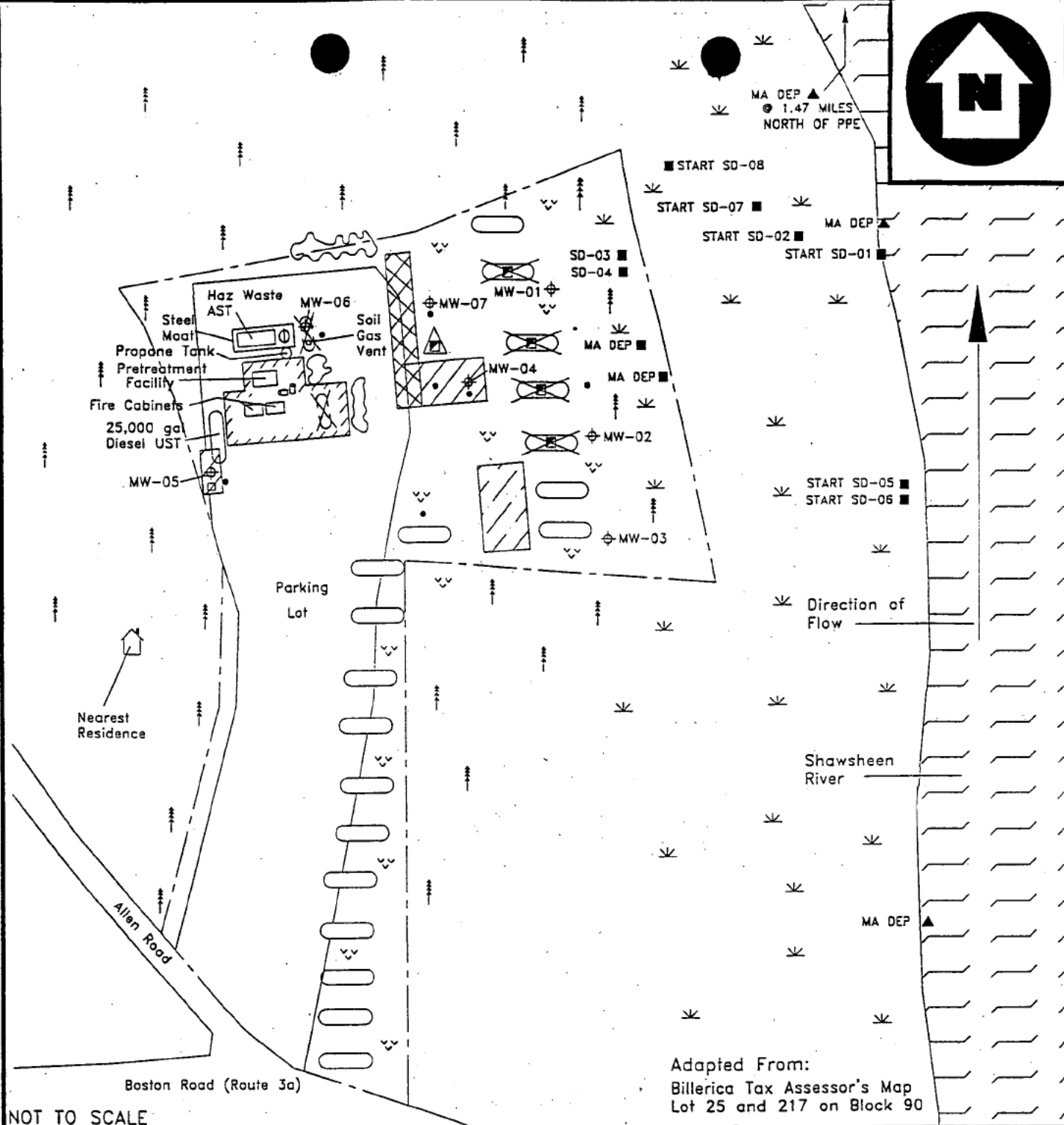
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FIGURE 1



NOT TO SCALE

	Tanker Truck		Woods		Scrap Pile		Property Line
	Former Drywell		Grass		Former Surface Impoundment		Burn Area
	Monitoring Well (Screened in Overburden)		Wetlands		Sandblasting Area		55-Gallon Drums
	Sediment Sample Location		Paulling Soil Sample Location		Former Cemented Sludge Pile		Former UST Location
	Former Tanker Truck		Surface Water Sample Location		Sludge Sample Location		Source Sample Location

SITE SKETCH

Roy Brothers Haulers
764 Boston Road
Billerica, MA



MANAGERS DESIGNERS/CONSULTANTS

REGION I SUPERFUND TECHNICAL ASSESSMENT AND RESPONSE TEAM

TDD #
95-06-0006

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J. Padden

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12/29/95

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FIGURE 2

On 20 September 1995, START personnel performed an on-site reconnaissance of the Roy Bros property. The building houses the Roy Bros offices, two truck rinsing bays, a garage bay for truck repairs, and the on-site waste treatment facilities. The waste treatment facilities consist of two holding tanks, two oil separators, a filtration tank, and a deionizing filter. The clamshell of a backhoe is used to catch the effluent sludge removed by the deionizing filter and is disposed of by a hazardous waste hauler. In the rinsing bays, floor drains collect and route the washwater and excess detergent through the treatment process. Two fire cabinets containing fifteen to twenty 1-gallon paint cans are located in the building. A temporary drum storage area is also located within the building. The current inventory of the storage area is as follows: three 55-gallon drums of methyl ethyl ketone, two 55-gallon drums of ethyl acetate, four 55-gallon drums of sulfuric acid, and two 55-gallon drums of caustic potash. The drums are stored undercover on wooden pallets on a concrete floor. Potential spills are contained by a two-inch wide concrete trough. The contents of the trough flow into the rinsing bays and the treatment system [2, pp. 5-12].

From the southern edge of the property and extending to the southern side of the building, an 100-foot wide strip of the property is paved and used for temporary storage of tankers. The paved area continues around the eastern and northern sides of the building. These paved areas extend approximately 50 feet from the building. Empty tankers line the eastern edge of the property. These tankers are stored off the paved area. The property beneath the tankers is sparsely vegetated [2, p. 7].

North of the building, a empty tanker serves as an above-ground storage tank (AST) for leftover tank residue. The AST is a double-walled tank missing several exterior panels. Only two sides of the AST display proper labels for hazardous waste storage. Several dents in the sides of the AST were visible. The AST is raised on blocks within an uncovered steel moat. The area of the steel moat is 525 square feet (ft²). Within the moat, standing water with a stained, red tint was observed. An open drainage pipe outfall lies at surface level in the northwest corner of the moat. A 1-ft² area of stained soil is adjacent to the outfall pipe [2, p. 11].

A 4,400-ft² area of blackened surficial soil was observed south of the former eastern lagoon area. This area was reportedly the recent location for a short-term sandblasting operation. A storage trailer north of the building contained bags of "Black Beauty," a sand blasting material. The constituents of this blackened soil and "Black Beauty" could not be determined [2, p. 11].

A "burn area" of approximately 5,600 ft² was located between the building and the former eastern lagoon. In this area, debris ranging from oil filters to office supplies were deposited into a trench and burned [2, pp. 2-12]. The extent and period of use of this disposal area is unknown.

Seven monitoring wells are located on the Roy Bros property. Well Nos. 1, 2, and 3 were located adjacent to the abutting wetlands along the eastern border of the property. Well Nos. 1 and 2 have flushmounts and appear to have questionable seals. The exact location and present condition of Well No. 3 are unknown. Well Nos. 4 and 5 are in poor condition and located in the vicinity of the former eastern and western lagoon areas, respectively. Well No. 6 is located east of the moat approximately 15 feet north of the building. Well No. 6 is locked and appeared in good condition. Near Well No. 6, two soil gas pit vents extend out of the ground. A steel

cover provides shelter to the two vents. Located downgradient of Well No. 6, Well No. 7 is locked and appeared in good condition [2, pp. 3-12].

The property is easily accessible to the public. No visible security measures or barriers to access exist other than the neighboring wetlands which provide a natural barrier to access on the northern and eastern boundaries of the property. The nearest residence to the property is located on the western boundary of the property, 210 feet southwest of the former western lagoon area [2, p.12]. The nearest school, the Ditson School, is located on Boston Road, approximately 0.6 miles southeast of the property [3; 61; 62; 63].

OPERATIONAL AND REGULATORY HISTORY AND WASTE CHARACTERISTICS

Since 1948, Roy Bros has transported liquid and dry industrial chemicals. Roy Bros currently operates a fleet of 120 tanker trucks and 25 tractors. The substances hauled include chromium, benzene, toluene, methyl ethyl ketone, and 1,1,1-trichloroethane [1, p. 2].

Prior to 1969, effluent washwater was discharged to a 1,000-gallon septic drywell located north of the building. Sludge and other residues collected from the rinsing process were disposed of in an unlined lagoon area located east of the main building. In 1969, the drywell was converted to a grease trap and the washwater was discharged into the existing lagoon area [22, p. 1].

Toward the end of 1975, Massachusetts Department of Environmental Protection (MA DEP) (formerly Massachusetts Department of Environmental Quality Engineering (MA DEQE)) became aware that Roy Bros was hauling hazardous wastes. Upon being notified of the hazardous waste regulations, Roy Bros applied for and obtained a 1976 license for conveyance of hazardous waste [23, p. 1].

Beginning in 1976, the effluent washwater was discharged into an unlined, infiltration lagoon area located immediately west of the building. The location of this disposal area was determined under the supervision of MA DEP [35, p. 1].

Several inspections conducted by MA DEP in Spring 1976 revealed problems of wastewater disposal, chemical spillage, and undiked storage tanks. In July 1976, Roy Bros' hazardous waste hauling license was revoked [23, p. 1]. An administrative Order was issued requiring the cleanup and upgrading of the subsurface disposal system. MA DEP issued a Modified Order involving the construction of pretreatment facilities by December 1977 [24, p. 1].

Coastal Services, Inc., contracted by Roy Bros, removed and disposed of the contaminated contents of the easterly-located lagoons on 28 April 1977 [56].

On 23 March 1978, MA DEP approved plans for a pretreatment facility for Roy Bros [25]. Once on-line, Roy Bros was to immediately begin a sampling program and apply for sewer tie-in with the Town of Billerica [26].

MA DEP inspected Roy Bros on 30 August 1979 to examine the recently installed treatment plant. The treated effluent was being discharged to the westerly-located lagoon without proper MA DEP approval. In addition, sludge was collected in drums, pumped into Roy Bros tanker

trucks, and hauled to Cannon Engineering for incineration [27, p. 1]. No documentation concerning disposal is known to exist.

On 4 January 1980, Thorestensen Laboratory (Thorestensen) personnel conducted sampling for physical parameters of the effluent wastewater. Based on the analytical results, Roy Bros was denied a permit for connection to the Billerica sewer system on 18 March 1980 [28].

On 17 November 1980, EPA identified Roy Bros, through a Surface Impoundment Assessment (SIA) report, as a potential hazardous waste site. The reason cited for its identification was the presence of an unlined lagoon area, which could contribute to groundwater contamination [29].

On 6 February 1981, a MA DEP inspection revealed that all grit, skimming, and sludge from the pretreatment facility were either "stored" or disposed of on site. Three tanker trucks were on the property filled with sludge. Roy Bros combined the sludge with portland cement and dumped it on the ground. Two large piles were observed to the east of the building at the time of the inspection. Visible contamination of the ground and surface runoff which drained into the nearby Shawsheen River was evident. Numerous drums, containing rinsing residues from the truck cleaning operations, were observed on the ground surface to the east of the building. Some of the drums were reported as leaking and overflowing onto the ground [30, pp. 2-4]. Mr. Maurice Roy of Roy Bros indicated that the sludge was being taken away by Maine Coastal [33, p. 2]. No documentation concerning the disposal of sludge is known to exist.

On 13 February 1981, MA DEP collected samples of the western infiltration lagoon, the adjacent wetlands, and effluent sludge stored in a tanker on the property. The analytical results indicated elevated levels of acetone, toluene, ethyl benzene, xylenes, and methyl ethyl ketone at each sample location [31, p. 1; 32, pp. 1-5]. Complete analytical results are included in Attachment A.

Additional samples were collected by MA DEP on the property on 24 February 1981 to determine the possible environmental impacts as a result of the company's operation. Three surface water samples were collected along the Shawsheen River at the following locations: upstream of the property, at a probable point of entry located along the eastern edge of the property in the adjacent wetland, and near the intake for the Burlington Water Treatment Plant, which is located approximately 1.4 miles downstream of the property [33, p. 1]. The analytical results revealed trace concentrations of 1,1,1-trichloroethane in samples from each location [34, pp. 1-3]. Complete analytical results are included in Attachment B.

In April 1981, Roy Bros was issued a permit to tie-in with the Billerica sewer system. The westerly-located infiltration lagoon was eliminated from the treatment process [35, pp.1-2]. A 25,000-gallon diesel underground storage tank (UST) was installed in the vicinity of the westerly-located lagoon in 1981. According to MA DEP, discolored soils were observed to a depth of twelve feet below grade during installation activities [75, p. 3]. No documentation exists concerning excavation and removal of soil from the vicinity of the former infiltration lagoon.

On 15 December 1981, MA DEP performed a Preliminary Assessment (PA) of the Roy Bros property for the EPA. The PA indicated that the waste from Roy Bros was in both liquid and

sludge form, and had toxic, flammable, and highly volatile characteristics. Contamination to the groundwater, surface water, and soil were listed as potential hazards [45, pp. 1-4].

On 21 April 1983, a MA DEP inspection of Roy Bros revealed the following: a tanker truck being used for temporary sludge storage and one "cemented sludge" pile found along the northern edge of the property. The tanker truck was reportedly emptied twice a month by a licensed hazardous waste hauler; however, no manifest documentation was available [35, pp. 1-3].

On 23 December 1983, MA DEP inspected the wastewater treatment facility located on the Roy Bros property. Approximately 7,000 gallons of wastewater were treated daily by the treatment system. The effluent was discharged as a clear, yellow liquid to the Billerica sewer system [52].

On 21 and 22 February 1984, the Federal Highway Administration (FHA) performed a Safety Management Audit of Roy Bros. The audit indicated that Roy Bros transported chemicals for the following suppliers: Mobil, Exxon, Monsanto, Polyvinyl Chemical, George Mann, Reichhold Chemical, DowChemical, and Cargill. The audit revealed that manifests existed for the transportation of generated hazardous waste liquid not otherwise specified (NOS), waste solvent NOS, and waste oil NOS. The manifests indicated that the primary transporter for shipments was Suffolk Services [36, pp. 1-2].

On 22 January 1985, Thorstensen personnel sampled the discharge from the pretreatment system located on the Roy Bros property for physical water quality parameters. Analytical results indicated biochemical oxygen demand (BOD), total solids, and chrome at concentrations of 1,130 milligrams per liter (mg/L), 48 mg/L, and 22 mg/L, respectively [65]. Complete analytical results are included in Attachment C.

On 26 February 1985, MA DEP inspected the facility's truck washing and waste treatment process. Two dozen drums were observed in the two wash bays. The contents of these drums were pumped into an unregistered white, double-lined tanker kept in the front yard. Two other non-registered 5,500-gallon tankers were parked in the back yard; each about two-thirds full. Neither of these tankers were reportedly properly marked or labeled. An uncovered cemented sludge pile was also observed by MA DEP personnel in the east back yard during the 1985 inspection [37, pp. 1-2].

On 5 March 1985, samples were collected by EPA during a Resource Conservation and Recovery Act (RCRA) Industrial Survey of the property. Analysis of the samples indicated that the contents of three tankers and an open drum were considered hazardous based on ignitability. Mr. Roy stated that Roy Bros had been storing waste onsite for over two years in the tankers. EPA reviewed manifests from Roy Bros of which only 16 of the facility signed copies could be located. EPA observed no site security alarms or communication systems in the yard [38, pp. 1-11].

On 15 May 1985, MA DEP collected samples of the treated wastewater discharged from the pretreatment system for physical water quality parameters. Analytical results indicated elevated concentrations for BOD, chemical oxygen demand (COD), and total solids in the samples [69]. Complete analytical results are included in Attachment D.

On 2 July 1985, a Complaint, Compliance Order, and Notice of Opportunity for Hearing was issued to Roy Bros by EPA. The Order addressed non-compliance to numerous RCRA regulations by Roy Bros and included a civil penalty against Roy Bros [46].

Between 30 April and 21 June 1986, a hydrogeologic investigation of the Roy Bros was performed by the Paulding Co. (Paulding). Five borings and five monitoring wells were installed on the Roy Bros property. Samples from each well were obtained on 9 May 1986 by Environmental Field Services, Inc. (EFS) and analyzed for priority pollutant metals, volatile organic compounds (VOCs), and semivolatile organic compounds (SVOCs). VOCs in the monitoring wells located in the former lagoon areas were detected at concentrations of 1 part per million (ppm). The total concentration of VOCs in the water samples from the monitoring Well Nos. 1, 2, and 3 averaged less than 0.1 ppm. The concentrations of SVOCs in the samples taken from Well Nos. 1, 3, 4, and 5 were below detection limits, and, in Well No. 2, the total concentration was 0.02 ppm [40, pp. 1-7]. Complete analytical results are included in Attachment E.

Leak-testing was conducted on the two buried 1,000-gallon concrete tanks used to collect and temporarily store the washwaters from the truck-washing operations. According to Paulding, the tanks were considered leak-tight based on National Fire Protection Standards [40, pp. 4-5].

A SSI was conducted by NUS/FIT on the Roy Bros property in 1988. NUS/FIT concluded that, although a removal operation took place, the potential for direct contact still existed [1, pp. 1-2].

On 11 September 1992, American Environmental Laboratories, Incorporated (AEL), collected groundwater samples at a series of locations on the Roy Bros property. Unfiltered groundwater samples were collected from Well Nos. 1, 2, 3, 4, and 5. These samples were tested for priority pollutant metals, VOCs, and SVOCs. Results indicated that the concentrations of metals were below detection limits. Neither VOCs nor SVOCs were detected in the samples from the wells [41]. Complete analytical results are included in Attachment F.

An additional round of sampling was performed by AEL on 21 June 1993. The samples were analyzed for priority pollutant metals, VOCs, and SVOCs. Analytical results indicated the presence of elevated concentrations of bis(2-ethylhexyl)phthalate, di-n-butylphthalate, ethyl benzene, and xylenes in Well No. 5. No priority metals were detected in any of the groundwater samples from the monitoring wells [47]. Complete analytical results are included in Attachment G.

In July 1993, Paulding submitted a request to the MA DEP to remove Roy Bros from the MA DEP's List of Confirmed Disposal Sites and Locations to be Investigated [39].

On 14 April 1994, Mr. Leo Roy of Roy Bros submitted a Response Action Outcome (RAO) Statement to the MA DEP [43]. In conjunction with the RAO Statement, Paulding provided a Licensed Site Professional (LSP) Evaluation Opinion Transmittal Form indicating that a observed release may have occurred at the location but the response actions were completed prior to the date of the opinion [43].

On 20 December 1994, MA DEP informed Roy Bros that an audit of several response actions undertaken on the property would be conducted. The audit was intended to ensure the response actions were conducted according to Massachusetts Contingency Plan (MCP) and other relevant laws and regulations [48].

On 13 March 1995, the results of the Roy Bros audit were submitted by MA DEP. The results identified deficiencies in the response actions conducted at Roy Bros. The audit revealed the need for further investigation due to the lack of sufficient data for the soil and nearby surface water targets [44].

Paulding collected soil samples on 18 May 1995 during the advancement of test borings by Soil Exploration Corporation. The samples were analyzed by IEA-Massachusetts, Inc. (IEA), for priority pollutant metals, VOCs, and SVOCs. Elevated levels of bis(2-ethylhexyl)phthalate were detected in a majority of the samples [21]. Complete analytical results are included in Attachment H.

Groundwater samples were collected on 1 June 1995 by Geologic Field Services (GFS). The samples were analyzed for priority pollutant metals, VOCs, and SVOCs. Two additional wells, Nos. 6 and 7, were installed on the property. Elevated levels of vinyl chloride were detected in the Well No. 6 groundwater sample [20]. Complete analytical results are included in Attachment I.

START personnel conducted an on-site reconnaissance on 20 September 1995 of the Roy Bros property in Billerica, Massachusetts. START personnel were joined onsite by Messrs. Leo and Maurice Roy of Roy Bros, Mr. Bartlett Paulding of the Paulding Company, and Ms. Nancy Fitzpatrick of the MA DEP [2, p. 2]. The on-site reconnaissance of the property included paved and unpaved portions, potential source areas, and inspection of on-site monitoring wells and the existing treatment facility [2, pp. 3-13].

On 19 December 1995, START personnel conducted sampling activities at the Roy Bros property. A total of eight environmental samples were collected from sediment locations in the adjacent wetland area. START sediment samples were submitted for full organic, total metals, and cyanide analyses through the EPA Contract Laboratory Program (CLP) [2, pp. 16-23]. Complete analytical results are included in Attachment J.

Table 1 presents identified structures or areas on the Roy Bros property that are documented or potential sources of contamination, the containment factors associated with each source, and the relative location of each source.

Table 1
Source Evaluation for Roy Bros Haulers

Source Area	Containment Factors	Spatial Location
Former Septic drywell	Unlined.	North of main building.
Former Infiltration Lagoon	Unlined.	East of main building.
Former Infiltration Lagoon	Unlined.	Southwest of main building.
Former Hazardous Waste Storage Area (includes two dozen drums)	Located on a concrete floor.	Within main building.
Former ASTs	No secondary containment known to exist.	Front yard of property, south of main building.
Hazardous Waste AST	Double-lined tank, located in steel moat.	Rear yard of property, north of main building.
Former Cemented Sludge Pile	None.	Vicinity of eastern infiltration lagoon.
Former ASTs	None.	North of main building.
Eleven Drums	Located on a concrete floor.	Within main building.
Former Burn Area (includes oil filters, office supplies, etc.)	None.	North of main building.
Sandblasting Area	None.	South of eastern infiltration lagoon.

[1; 2; 23; 30; 32; 35; 37; 38; 39; 52; 64]

Table 2 summarizes the types of potentially hazardous substances which have been disposed, used, or stored on the Roy Bros property. In addition, the table provides the estimated volume or area of each substance and the number of years it was used, stored, or disposed on site.

Table 2

Hazardous Waste Quantity for Roy Bros Haulers

Substance	Quantity or Volume/Area	Years of Use/Storage	Years of Disposal	Source Area
Washwater	Approximately 6,000 gallons per day ^a	Approximately 33 years (1948 - 1981)	33 years (1948 - 1981)	Septic Drywell (1948-1968); Eastern Lagoon Area (1968-1978); Western Lagoon Area (1978-1981).
Sludge	Unknown	Approximately 37 years (1948 - 1985)	37 years (1948 - 1985)	Eastern Lagoon Area (1948-1976); Western Lagoon Area (1976-1978); Cemented Sludge Pile (1981-1985); AST (1981-1985).
Heels	Unknown	Approximately 17 years (1978 - present)	17 years (1978 - present)	Hazardous Waste Storage Area (1978-1985); ASTs (1978-1985); AST (1985-present).
Debris	Unknown	Unknown	Unknown	Burn Area
Sandblasting Material	Unknown	Unknown	Unknown	Sandblasting Area

^a = Documentation only available between 1974 and 1981.

[1; 2; 23; 30; 32; 35; 37; 38; 39; 52]

No known properties listed under the Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) are located within 1-radial mile of the Roy Bros property [73]. Twenty-eight RCRA facilities are located within 1-radial mile of the property [74].

WASTE/SOURCE SAMPLING

Thorstensen personnel collected source samples of the effluent wastewater on 4 January 1980. The samples were collected prior to release to the Billerica Sewer system and analyzed for physical water quality parameters, including BOD and COD. Analytical results indicated that BOD ranged in concentration between 4,000 and 6,000 mg/L. The normal wastewater discharged to the Billerica sewer system was characterized by a BOD concentration of 200 mg/L [28].

On 29 September 1980 and 4 March 1981, Extraction Procedure for Toxicity (EP Toxicity) tests were conducted by Thorstensen personnel on samples collected from the cemented-sludge pile located on the Roy Bros property. An estimated three truckloads of temporarily-covered, cemented sludge were reportedly located on the Roy Bros property in September 1980 [67; 68].

Analytical results deemed the material non-hazardous and indicated the leachability of the cemented sludge to be almost negligible. According to MA DEP, the fate of the pollutants bound in the cement could not be predicted in cases where this waste would be buried with refuse in a landfill. MA DEP classified the pile of cemented sludge located on the Roy Bros property as a special waste due to the handling required for disposal [67; 68].

MA DEP personnel conducted source sampling on the property on 13 February 1981. Source samples were collected from the westerly-located lagoon and effluent sludge stored in a tanker on the property. Each sample was analyzed for VOCs and SVOCs using EPA Method 624. Quality Assurance/Quality Control (QA/QC) consisted of conducting a matrix spike. The collection of reference samples was not discussed. An environmental sample in the adjacent wetland and a composite sample of standing water on the Roy Bros property were also collected during this sampling event. Analytical results indicated the presence of methylene chloride, acetone, methyl ethyl ketone, 1,1,1-trichloroethane, ethyl benzene, toluene, and xylene at elevated concentrations in each sample [31; 32]. Complete analytical results are included in Attachment B.

On 21 April 1983, MA DEP personnel inspected the Roy Bros property to evaluate potential source areas with a photoionization detector (PID). Within the building, readings of 5 ppm were recorded in the truck rinsing bays. Readings of 15 ppm were recorded near open 55-gallon drums containing excess chemicals drained from the tanker trucks prior to the truck washing operation. Treated wastewater effluent indicated readings at levels ranging between 10 and 15 ppm. No readings were recorded outside the building [35, pp. 1-3].

On 22 January 1985, Thorstensen personnel sampled the discharge from the pretreatment system located on the Roy Bros property for physical water quality parameters. Analytical results indicated BOD, total solids, and chrome at concentrations of 1,130 mg/L, 48 mg/L, and 22 mg/L, respectively [65]. Complete analytical results are included in Attachment D.

During the 5 March 1985 RCRA Industrial Survey conducted by EPA, samples were collected from one open drum and five old tanker trucks containing heels previously drained during the truck-washing operations. Heels are excess chemicals which were previously drained from a tanker truck prior the truck-cleaning process [55]. Three of these tankers had been storing heels on site for over two years. The additional tanker contained wastewater treatment sludge. The samples were analyzed for ignitability using the flash point analytical method. Analysis of the samples indicated that material in three of the five tankers and the open drum was an ignitable, hazardous material with a flash point less than 140°F [38, pp. 2-3].

On 15 May 1985, MA DEP personnel collected source samples of the effluent from the pretreatment system located on the Roy Bros property. Samples were analyzed for water quality parameters, including: chloride, iron, manganese, pH, COD, BOD, and total solids. Analytical results indicated BOD, COD, and total solids at concentrations of 1,710 mg/L, 3,050 mg/L, and 9,410 mg/L, respectively. According to MA DEP, results represented a continued, biological loading to the existing sewage treatment plant considerably in excess of normal wastes [69].

On 18 May 1995, GFS personnel collected split-spoon soil samples in the following former source locations on the Roy Bros property: the former westerly-located lagoon, the former easterly-located lagoon, and in the vicinity of the former UST and drywell north of the building. Three soil borings were advanced in the area of the former westerly-located lagoon. Five soil borings were advanced in the former easterly-located lagoon. One soil boring, MW-06, was advanced north of the building immediately downgradient of the former UST and drywell. An additional soil boring, MW-07, was advanced approximately 200 feet east of MW-06 [21; 71, p. 1].

IEA of North Billerica, Massachusetts analyzed each sample for the 13 priority pollutant metals, total petroleum hydrocarbons (TPH) using a modified EPA Method 8100 by gas chromatography/flame ionization detector (GC/FID), and SVOCs using EPA Method 8270. Samples were analyzed for VOCs using EPA Method 8260. Quality Assurance/Quality Control (QA/QC) consisted of the collection of method blanks. Collection of reference samples was not discussed [21; 70; 71, pp. 2-7].

Analytical results indicated elevated concentrations of TPH at all sample locations. Levels of TPH ranged between 150 ppm and 12,000 ppm. The maximum concentrations of TPH were observed in the vicinity of the suspected burn area. Elevated levels of VOCs and SVOCs were also observed at all samples locations. No metals were detected at an elevated concentration [21; 70; 71, pp. 2-7].

During the 20 September 1995 START on-site reconnaissance, a former "burn area" was located between the building and the former eastern lagoon and was approximately 5,600 square feet. In this area, debris ranging from oil filters to office supplies was deposited into a trench and burned. The time period for this disposal practice is unknown [2, p.8].

Table 3 summarizes the maximum concentrations of contaminants detected in source samples collected in the vicinity of the Roy Bros property between 1981 and 1995.

Table 3

**Summary of Analytical Results:
Highest Concentrations Detected
Source Sample Analyses for Roy Bros Haulers
Between 1981 and 1995**

	Compound / Element	Maximum Concentration	Sample Location	Date of Collection
VOCs	Acetone	18,000 µg/L	Sludge	13 Feb 1981
	Benzene	380 µg/kg	Burn Area	18 May 1995
	Chlorobenzene	730 µg/kg	Burn Area	18 May 1995
	Ethylbenzene	1,300 µg/kg	Eastern Lagoon	18 May 1995
	Methylene chloride	3,000 µg/L	Sludge	13 Feb 1981

Table 3 (Continued)

**Summary of Analytical Results:
Highest Concentrations Detected
Source Sample Analyses for Roy Bros Haulers
Between 1981 and 1995**

	Compound / Element	Maximum Concentration	Sample Location	Date of Collection
VOCs (Continued)	Styrene	5,100 µg/kg	Eastern Lagoon	18 May 1995
	Tetrachloroethene	13 µg/kg	Western Lagoon	18 May 1995
	Toluene	2,690 µg/L	Eastern Lagoon	13 Feb 1981
	Xylene	4,200 µg/kg	Eastern Lagoon	18 May 1995
SVOCs	Anthracene	3,800 µg/kg	Contaminated Soil	18 May 1995
	Benz(a)anthracene	3,200 µg/kg	Contaminated Soil	18 May 1995
	Benzo(b)fluoranthene	3,100 µg/kg	Contaminated Soil	18 May 1995
	Bis(2-ethylhexyl)phthalate	2,600,000 µg/kg	Burn Area	18 May 1995
	N-butylbenzene	150 µg/kg	Burn Area	18 May 1995
	S-butylbenzene	46 µg/kg	Burn Area	18 May 1995
	T-butylbenzene	130 µg/kg	Burn Area	18 May 1995
	Chrysene	2,900 µg/kg	Contaminated Soil	18 May 1995
	1,2-dichlorobenzene	260 µg/kg	Burn Area	18 May 1995
	1,4-dichlorobenzene	76 µg/kg	Burn Area	18 May 1995
	Fluoranthene	8,900 µg/kg	Contaminated Soil	18 May 1995
	Isopropylbenzene	1,100 µg/kg	Eastern Lagoon	18 May 1995
	P-isopropyltoluene	1,200 µg/kg	Burn Area	18 May 1995
	Methyl ethyl ketone	36,600 µg/L	Eastern Lagoon	13 Feb 1981
	Phenanthrene	10,000 µg/kg	Contaminated Soil	18 May 1995
	Pyrene	9,300 µg/kg	Contaminated Soil	18 May 1995
	1,2,4-trimethylbenzene	1,200 µg/kg	Eastern Lagoon	18 May 1995
	1,3,5-trimethylbenzene	300 µg/kg	Burn Area	18 May 1995

Table 3 (Concluded)

**Summary of Analytical Results:
Highest Concentrations Detected
Source Sample Analyses for Roy Bros Haulers
Between 1981 and 1995**

	Compound / Element	Maximum Concentration	Sample Location	Date of Collection
INORGANICS	Arsenic	9.51 mg/kg	Western Lagoon	18 May 1995
	Cadmium	5.4 mg/kg	Eastern Lagoon	18 May 1995
	Chromium	139.0 mg/kg	Eastern Lagoon	18 May 1995
	Copper	32.8 mg/kg	Western Lagoon	18 May 1995
	Lead	89.0 mg/kg	Burn Area	18 May 1995
	Nickel	17.3 mg/kg	Burn Area	18 May 1995
	Zinc	141.0 mg/kg	Contaminated Soil	18 May 1995

$\mu\text{g/kg}$ = Micrograms per kilogram.
 $\mu\text{g/L}$ = Micrograms per Liter.
 mg/kg = Milligrams per kilogram.
 PCBs = Polychlorinated biphenyls.
 VOCs = Volatile organic compounds.
 SVOCs = Semivolatile organic compounds.

[21; 31; 32; 70; 71]

GROUNDWATER PATHWAY

The soils in the area of the Roy Bros Haulers property are classified as Udorthents, Scarboro, and Saco units. The Udorthents unit occurs in the south and southwest areas of the property and consists of sandy material which has been excavated due to construction. The Scarboro unit is located in the central and northwest sections of the property and is comprised of loamy sand over stratified sand and gravel at 3 to 16 inches of depth. The Saco unit is located in the east and northeast portions of the property and is characterized as mucky silty loam and consists of very poorly drained soils on floodplains. This unit has rapid permeability and its slope varies from 1% to 3% [18, pp. 24-26].

Beneath the overburden, the underlying bedrock includes sedimentary and volcanic rock consisting of Boxford members. This formation is characterized as thin-bedded to massive amphibolite and minor biotite gneiss [64]. No bedrock formation mapped within 4-radial miles of the property exhibits karst characteristics.

Groundwater flow direction in the area of the Roy Bros property is estimated to be toward the east. The localized groundwater flow across the property, obtained from groundwater elevations collected by Paulding in July of 1986, is easterly. The depth to the groundwater on the property is approximately 7 feet [40, p. 4]. Annual precipitation in the Billerica area is 44.77 inches per year [77].

All or part of the following Massachusetts cities and towns are located within 4-radial miles of Roy Bros Haulers: Bedford, Billerica, Burlington, Carlisle, Lexington, Tewksbury, and Wilmington [3; 61; 62; 63]. The nearest public drinking water wells to the property, the Terrance Hall Road Well Nos. 1 and 2, are located (b) (9) of the property; the wells are blended to service the Town of Burlington [15]. The persons who rely on private groundwater supplies within 4-radial miles of the property were estimated using equal distribution of U.S. Census CENTRACTS data identifying population, households, and private water wells for "Block Groups" which lie wholly or in part within individual radial distance rings measured from potential sources on the property [17]. According to the Billerica Board of Health, no private wells are located within 1-radial mile of the property [17; 51]. Public and private groundwater supplies located within 4-radial miles of the property serve an estimated 19,194 people [9; 10; 11; 12; 13; 14; 15; 16; 17]. Table 4 summarizes the public groundwater supply sources within 4-radial miles of the Roy Bros property.

Table 4

Public Groundwater Supply Sources Within 4-Radial Miles of Roy Bros Haulers

Distance/ Direction from Site	Source Name (Town Served)	Location of Source ^a	Estimated Population Served	Source Type ^b
(b) (9)	Terrance Hall Road No.1 (Burlington)	Burlington	1,422	overburden, gravel pack
	Terrance Hall Road No.2 (Burlington)	Burlington	852	overburden, gravel pack
	Middlesex Turnpike No.3 (Burlington)	Burlington	852	overburden, gravel pack
	Middlesex Turnpike No.4 (Burlington)	Burlington	852	overburden, gravel pack
	Middlesex Turnpike No.5 (Burlington)	Burlington	711	overburden, gravel pack
	Shawsheen Well No.2 (Bedford)	Bedford	787	overburden, gravel pack
	Shawsheen Well No.4 (Bedford)	Bedford	1,384	overburden, gravel pack
	Shawsheen Well No.5 (Bedford)	Bedford	829	overburden, gravel pack
	Butters Row Well No.1 (Wilmington)	Wilmington	2,678	overburden, gravel pack

Table 4 (Concluded)

Public Groundwater Supply Sources Within 4-Radial Miles of Roy Bros Haulers

Distance/ Direction from Site	Source Name (Town Served)	Location of Source ^a	Estimated Population Served	Source Type ^b
(b) (9)	Butters Row Well No.2 (Wilmington)	Wilmington	2,083	overburden, gravel pack
	Chestnut Street Well No.1 (Wilmington)	Wilmington	2,529	overburden, gravel pack
	Chestnut Street Well No.1a (Wilmington)	Wilmington	2,529	overburden, gravel pack

[3; 9; 10; 11; 12; 13; 14; 15; 16; 61; 62; 63]

Table 5 summarizes the estimated drinking water populations served by groundwater sources within 4-radial miles of the Roy Bros property.

Table 5

**Estimated Drinking Water Populations Served by Groundwater Sources
Within 4-Radial Miles of Roy Bros Haulers**

Radial Distance From Roy Bros Haulers (miles)	Estimated Population Served by Private Wells	Estimated Population Served by Public Wells	Total Estimated Population Served by Groundwater Sources Within the Ring
0.00 < 0.25	0	0	0
0.25 < 0.50	0	0	0
0.50 < 1.0	0	0	0
1.0 < 2.0	324	0	324
2.0 < 3.0	503	5,476	5,979
3.0 < 4.0	859	12,032	12,891
TOTAL	1,686	17,508	19,194

[9; 10; 11; 12; 13; 14; 15; 16; 17]

The Billerica Water Department provides drinking water to a majority of the residents of Billerica. The Water Department draws its supply solely through a surface water intake along the Concord River [14]. The Intake accounts for 90% of the total annual water supply. A pair of overburden groundwater wells, Bowler Well Nos. 1 and 2, exist, but have been inactive for several years [14].

The Burlington Water Department supplies the residents of Burlington with drinking water. The supply is provided from a surface water intake, a reservoir, and a series of well fields. The surface water intake is located on the Shawsheen River, 1.37 miles downstream of the Roy Bros property [3; 61; 16]. From the intake, the water is piped into Mill Pond. The Mill Pond is a 513-million gallon reservoir which services 80% of the town [16]. Three overburden groundwater wells, known as Middlesex Turnpike well Nos. 3, 4, and 5, are located (b) (9) of the property. Based on their individual pumping rates, these wells are blended together to serve a total of 2,274 residents. Two additional overburden groundwater wells, known as Terrace Hall Well Nos. 1 and 2, are located (b) (9) of the property. Based on their individual pumping rates, these wells are also blended together to service 2,274 residents in Burlington [15].

The Massachusetts Water Resource Authority (MWRA) supplies water to the residents of Lexington. The supply is provided from reservoirs which are not located downstream of the Roy Bros property [13]. The MWRA system provides drinking water to 100% of the residents in Lexington.

Two public water supplies provide drinking water to most of the residents of Bedford. The Town of Bedford obtains 76% of its drinking water from the Town of Lexington. Bedford Water Department currently utilizes one 10-inch connection to the MWRA system via the Lexington Water Department. The residents of Bedford are also served by a wellfield located (b) (9) of the Roy Bros property along the Shawsheen River. Based on their individual pumping rates, the three overburden groundwater wells, known as Shawsheen Well Nos. 2, 4, and 5, are blended together to service 3,000 residents of Bedford [15]. Nine additional groundwater wells are located in the Town of Bedford, but have been declared inactive due to groundwater contamination from local industry [12].

The Wilmington Water Department supplies water to the residents of Wilmington via seven active overburden groundwater wells; four of which lie within 4-radial miles of the Roy Bros property [11]. A pair of wells, known as the Butters Row well Nos. 1 and 2, are located (b) (9) of the property. Based on their individual flow rates, these wells are blended to service 4,761 residents. An additional pair of wells, known as Chestnut Hill Well Nos. 1 and 1a, are located (b) (9) of the property. Based on their individual flow rates, these wells are blended to supply 5,058 residents with drinking water [15]. One overburden groundwater well, known as the Shawsheen Avenue Well, is maintained as an emergency well and has not been utilized in the past year. An additional overburden groundwater well, known as Aldrich Road Well, has been inactive for several years [11]. No evidence could be located related to the closure of this well.

The Town of Tewksbury is supplied with drinking water from the Tewksbury Water Department. The Water Department provides 98% of the residents with water through a surface water intake located on the Merrimack River [9]. The Water Department maintains six emergency overburden groundwater wells within 4-radial miles of the property. However, these wells have not been utilized in several years [10].

Between 9 May 1986 and 1 June 1995, four rounds of groundwater sampling occurred at Roy Bros to determine the quality of groundwater and the extent to which the groundwater beneath the property had been impacted. During each event, the collected samples were analyzed for VOCs, SVOCs, and priority pollutant metals [20; 40; 41; 47].

On 8 May 1986, monitoring wells were installed at five locations on the Roy Bros property. Well Nos. 1, 2, and 3 were located along the edge of the wetlands and along the downgradient, eastern edge of the property. Well No. 4 was placed in the vicinity of the former eastern infiltration lagoon. Well No. 5 was located in the location of the former western infiltration lagoon. The borings were advanced by means of a hollow stem auger to a maximum depth of 27 feet. The wells were installed by Guild Drilling Co., Inc. [58]. Each of the monitoring wells was constructed of Schpoedule 40 poly vinyl chloride (PVC) with an inner diameter of two inches. The lower portions of each well consist of slotted PVC which extends from the bottom of the well to a foot above the groundwater table [40, pp.2-4].

On 13 May 1986, EFS personnel collected groundwater samples from monitoring wells nos. 1, 2, 3, 4, and 5. All samples were analyzed for VOCs and SVOCs using EPA Methods 624 and 625 [40].

The results of the EFS sampling indicated the presence of 10 VOCs in the groundwater. Each VOC was detected at a concentration three times the respective sample quantitation limit. Among the VOCs detected, only benzene, detected in MW-01, was observed at a concentration above its maximum contaminant level (MCL) of 5 parts per billion (ppb).

In September of 1992, AEL personnel collected groundwater samples from monitoring Well Nos. 1, 2, 3, 4, and 5. All samples were unfiltered and analyzed for priority pollutant metals, VOCs, and acid extractable compounds using EPA Methods 200.7, 624, and 625, respectively. Analytical results indicated that metals, VOCs, and SVOCs were below the respective detection limits [41].

On 21 June 1993, AEL performed an additional round of groundwater sampling on the Roy Bros property. Monitoring Well Nos. 1, 2, 3, 4, and 5 were again sampled for priority pollutant metals, VOCs, and SVOCs using EPA Method 200.7, 624, and 625, respectively. The results of the AEL sampling indicated the presence of ethylbenzene and xylene in the groundwater at elevated levels in the vicinity of the former westerly-located infiltration lagoon. Bis(2-ethylhexyl)phthalate was detected above its respective MCL [47].

According to MA DEP, the method detection limit (MDL) for polychlorinated biphenyls (PCBs) reported in the AEL June 1993 groundwater analysis using EPA Method 625 was 100 ppb. Since the MCL for PCBs is 0.5 ppb, the MDL was not sufficiently sensitive to identify if PCBs were present at levels which could impact the groundwater [77, p. 9].

An additional round of groundwater sampling was performed by AEL personnel on 11 November 1993. Monitoring well Nos. 1, 2, 3, 4, and 5 were again sampled for priority pollutant metals, VOCs, and SVOCs using EPA Method 200.7, 624, and 625, respectively. Results detected no elevated levels of metals, VOCs, or SVOCs among the samples [78].

Monitoring well installation and groundwater sampling were performed on 1 June 1995 by GFS personnel. Monitoring Well No. 6 was installed north of the building in the vicinity of the former drywell and UST location, and monitoring Well No. 7 was installed in the vicinity of the former burn area downgradient and east of monitoring Well No. 6. Groundwater samples were collected from all on-site monitoring wells and were analyzed for priority pollutant metals, VOCs, and SVOCs. QA/QC consisted of the collection of a trip blank [20]. The collection of a reference sample was not discussed.

Analytical results of the GFS sampling indicated the presence of eight compounds at concentrations three times the respective practical quantitation limit (PQL). Among the compounds detected, benzene, ethylbenzene, methylene chloride, and vinyl chloride were detected at concentrations above their respective MCL [20; 81].

Table 6 summarizes the maximum concentrations of contaminants detected in groundwater samples collected in the vicinity of the Roy Bros property between 1986 and 1995.

Table 6
Summary of Analytical Results:
Highest Concentrations Above Detectable Limits
Groundwater Analyses for Roy Bros Haulers
Between 1986 and 1995^c

	Compound/ Element	Maximum Concentration	Sample Location	Date of Collection	Comments MCL
VOCs	Acetone	47 ppb	MW-4	13 MAY 86	3.7 ppm ^a
	Benzene	310 ppb	MW-7	1 JUN 95	5 ppb
	Carbon disulfide	47 ppb	MW-5	1 JUN 95	3.7 ppm ^a
	Chloroethane	42 ppb	MW-4	13 MAY 86	NL
	Chlorobenzene	65 ppb	MW-7	1 JUN 95	100 ppb
	1,2-trans-dichloroethylene	240 ppb	MW-5	13 MAY 86	100 ppb
	Ethylbenzene	1,600 ppb	MW-6	1 JUN 95	700 ppb
	Fluorene	7.2 ppb	MW-5	21 JUN 93	1.5 ppm ^a
	Methylene chloride	210 ppb	MW-6	1 JUN 95	5 ppb
	Styrene	45 ppb	MW-5	13 MAY 86	100 ppb
	Toluene	190 ppb	MW-5	13 MAY 86	1.0 ppm

Table 6 (Concluded)

**Summary of Analytical Results:
Highest Concentrations Above Detectable Concentrations
Groundwater Analyses for Roy Bros Haulers
Between 1986 and 1995^c**

	Compound/ Element	Maximum Concentration	Sample Location	Date of Collection	Comments MCL
	Xylenes	150 ppb	MW-6	1 JUN 95	10 ppm
SVOCs	Bis(2-ethylhexyl)phthalate	67.4 ppb	MW-5	21 JUN 93	6 ppb
	Di-n-butylphthalate	28.1 ppb	MW-5	21 JUN 93	3.7 ppm ^a
	Fluoranthene	5.8 ppb	MW-2	21 JUN 93	1.5 ppm ^a
	Methyl ethyl ketone	620 ppb	MW-4	13 MAY 86	22 ppm ^a
	Methyl isobutyl ketone	680 ppb	MW-4	13 MAY 86	2.9 ppm ^a
	2-Methylnapthalene	19 ppb	MW-5	1 JUN 95	NL
	4-Methylphenol	14 ppb	MW-7	1 JUN 95	NL
	Napthalene	13.6 ppb	MW-5	21 JUN 93	NL
	Pentachlorophenol	20 ppb	MW-2	13 May 86	1 ppb
	Phenol	17 ppb	MW-7	1 JUN 95	22 ppm ^a
	Tetrahydrofuran	130 ppb	MW-3	13 MAY 86	NL
	1,2,4-trimethylbenzene	72 ppb	MW-6	1 JUN 95	NL
	Vinyl chloride	210 ppb	MW-6	1 JUN 95	2 ppb

VOCs = Volatile organic compounds.

SVOCs = Semivolatile organic compounds.

ppb = Parts per billion.

ppm = Parts per million.

NL = Not listed.

MCL = Maximum Contaminant Level.

^a = Reference dose screen concentration (mg/L).

^c = Inorganics were not detected above practical quantitation limit (PQL) between 1986 and 1995.

BOLD indicates the detectable concentration is above the Maximum Contaminant Level (MCL).

[20; 40; 47; 81]

Based on the facility's operational history, the historical disposal practices at the property, and the fact that 11 of the 25 compounds detected in the groundwater samples were previously reported at detectable concentrations in source samples, waste constituents detected in groundwater samples are likely attributable to on-site processes [20; 21; 31; 32; 40; 47; 70; 71; 81].

SURFACE WATER PATHWAY

The property is located adjacent to the Shawsheen River watershed, which is approximately 675 feet east of the former eastern lagoon area. All sources to the east of the building lie within the 100-year floodplain. In addition, a majority of the property lies within the 500-year floodplain [4].

The surface water runoff from the various source areas flows east to the abutting wetland area and into the Shawsheen River. START personnel observed sparse vegetation and blackened soil that extended from the paved area west of the building to the wetland area. The eastern portion of the property extends approximately 50 feet into the wetland [2, pp. 2-14].

The 15-mile downstream surface water pathway begins at the probable point of entry (PPE), located approximately 240 feet east of the northeast corner of the building at the edge of the wetland [3; 61; 62; 63]. At the PPE, the 15-mile surface water pathway extends 510 feet northeast through the wetland area to the Shawsheen River (Figure 3).

Two watersheds exist along the 15-mile downstream surface water pathway. One 15-mile downstream target distance limit is located on the Shawsheen River, approximately 2 miles upstream from its confluence with the Merrimack River. Over the 15-mile downstream distance, the mean annual flow of the Shawsheen River is 57.9 cubic feet per second (cfs) [6, p. 45]. Table 7 summarizes the water bodies along the 15-mile downstream pathway from the Roy Bros property.

Table 7
Water Bodies Along the 15-Mile Downstream Pathway from
Roy Bros Haulers

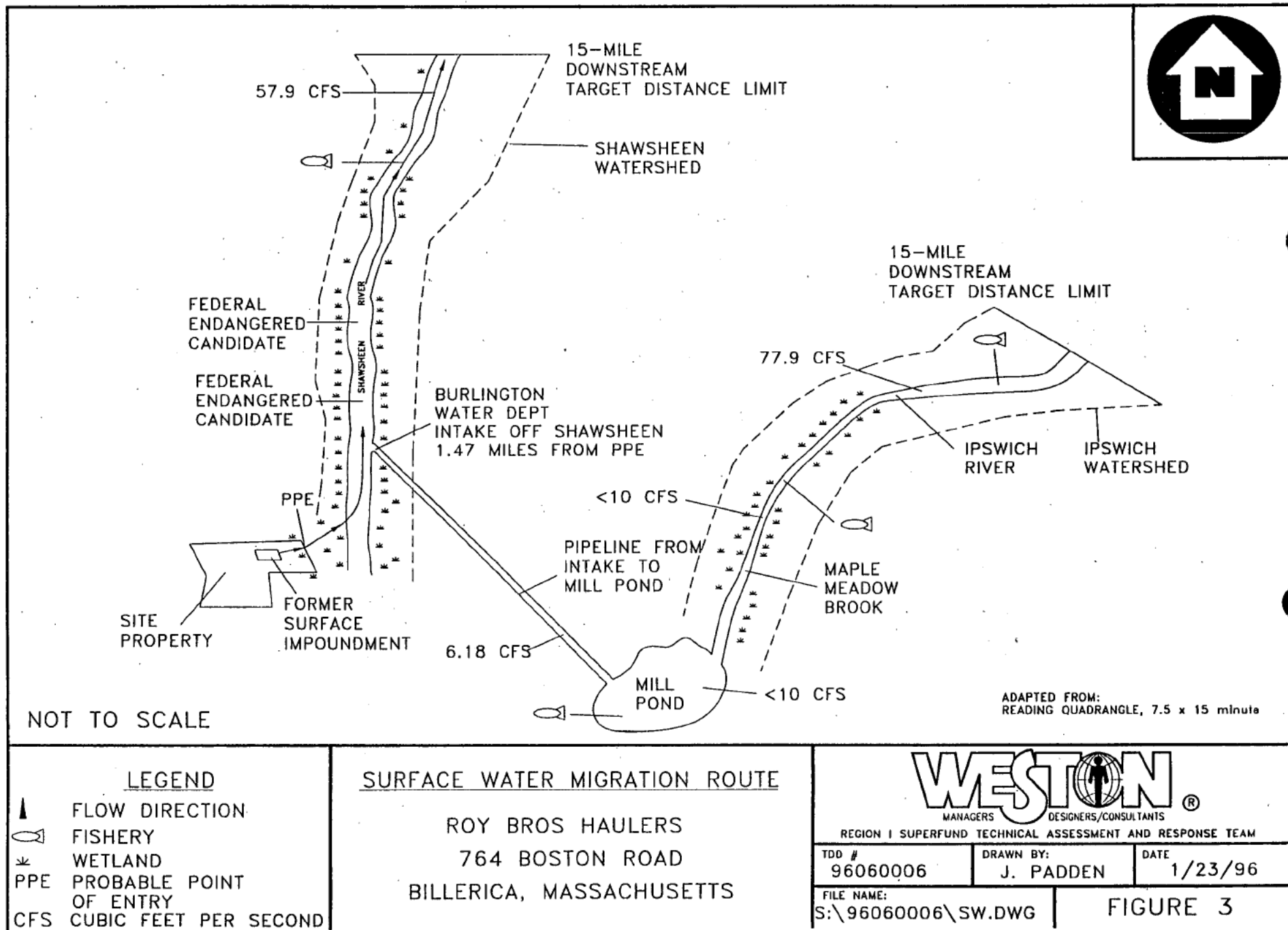
Surface Water Body	Descriptor ^a	Length of Reach	Flow Characteristics (cfs) ^b	Length of Wetlands
Shawsheen River	Moderate Stream	15 miles	10-100	2.2 miles
Mill Pond	Minimal Stream	1.6 miles	< 10	NA *
Maple Meadow Brook	Minimal Stream	3.67 miles	< 10	NA *
Ipswich River	Moderate Steam	6.6 miles	10 -100	NA *

^a Minimal stream < 10 cfs. Small to moderate steam 10-100 cfs. Moderate to large stream > 100-1,000 cfs. Large stream to river > 1,000-10,000 cfs. Large river > 10,000-100,000 cfs. Very large river > 100,000 cfs. Coastal tidal waters (flow not applicable). Shallow ocean zone or Great Lake (flow not applicable). Moderate depth ocean zone or Great Lake (flow not applicable). Deep ocean zone or Great Lake (flow not applicable). Three-mile mixing zone in quiet flowing river 10 cfs or greater.

^b Cubic feet per second.

* For this evaluation, this surface water body is located in the Ipswich River Watershed. This watershed will not be evaluated along the Surface Water Pathway.

[4; 5; 21; 22; 83; 84]



The Burlington Water Department operates a surface water intake on the Shawsheen River approximately 1.47 miles downstream of the property. The other 15-mile downstream surface water pathway flows via the intake into a pipeline to the Mill Pond Reservoir, which is located 3.13 miles southeast of the intake. Mill Pond supplies 80% of the residents of Burlington with drinking water [15; 16]. From Mill Pond, water empties into the Maple Meadow Brook. Flowing in a northeast direction, the Maple Meadow Brook feeds into the Ipswich River 3.67 miles downstream. The end of the second 15-mile downstream target distance limit is located 6.6 miles downstream on the Ipswich River. The flow of the second 15-mile downstream surface water pathway ranges from less than 10 to 77.9 cfs [3; 6; 15; 16; 61; 62; 63]. Table 8 summarizes the drinking water intakes along the 15-mile downstream pathway from the Roy Bros property.

Table 8
Drinking Water Intakes Along the 15-Mile Downstream Pathway from
Roy Bros Haulers

Intake Name	Water Body	Downstream Distance From PPE	Flow Rate at Intake	Estimated Population Served
Burlington	Shawsheen River	1.47 miles	57.9 cfs	18,191

cfs = Cubic feet per second.
[15; 16]

Both Shawsheen and Ipswich Rivers are classified as Class B along their lengths within the 15-mile downstream pathway. Class B designated uses include recreational use, fish and wildlife habitat, agricultural and industrial supply and other legitimate uses including navigation. The Mill Pond reservoir is categorized as Class A along its length within 15 miles downstream of the property. Class A designates a body of water as a source of public water supply, serve as excellent habitats for fish, other aquatic life and wildlife, and are suitable for primary and secondary contact recreation. According to the MA DEP, the Shawsheen River, Ipswich River, and Mill Pond are designated for protection as outstanding resources waters [7, pp. 83-91].

The Massachusetts Natural Heritage and Endangered Species Program indicated that three Federally-listed or proposed threatened and endangered species are known to occur along the 15-mile surface water pathway in the Shawsheen River Watershed. Approximately 17.5 miles of wetland frontage exist along the Shawsheen River watershed portion of the 15-mile surface water pathway [2, p. 12; 3; 5; 49; 82; 83; 84]. For this evaluation, the Federally- and State-listed or proposed threatened and endangered species and wetland frontage along Ipswich River Watershed portion of the 15-mile surface water pathway were not determined. Table 9 summarizes the sensitive environments along the 15-mile downstream pathway from the Roy Bros property.

Table 9

**Sensitive Environments Along the 15-Mile Downstream Pathway from
Roy Bros Haulers**

Sensitive Environment Type	Water Body	Downstream Distance From PPE	Flow Rate at Environment
Federal Endangered Candidate	Shawsheen River	3.02 miles	10-100 cfs
Wetlands (17.5 acres of frontage)	Shawsheen River	0 - 15 miles	10-100 cfs
Federal Endangered Candidate	Shawsheen River	6.83 miles	10-100 cfs

cfs = Cubic feet per second.

[5; 49; 82; 83; 84]

On 13 February 1981, an environmental sample was collected in the adjacent wetland by MA DEP personnel during a source sampling event. The sediment sample was analyzed for VOCs and SVOCs using EPA Method 624. QA/QC consisted of a matrix spike. The collection of a reference sample was not discussed [31; 32]. Table 10 summarizes the analytical results.

Table 10

**Summary of Analytical Results:
Highest Concentrations Detected
Sediment Sample Analysis for Roy Bros Haulers 13 February 1981
Performed by Massachusetts Department of Environmental Quality Engineering**

Sample Location	Compound/Element	Sample Concentration	Reference Concentration	Comments
Wetland (003565)	VOCs			
	Toluene	204 ppb	6.0 ppb	34 x MDL
	SVOCs			
	Acetone	221 ppb	25.0 ppb	8 x MDL
	Methyl ethyl ketone	241 ppb	25.0 ppb	9 x MDL

VOCs = Volatile organic compounds.
SVOCs = Semivolatile organic compounds.
MDL = Method detection limit.
ppb = Parts per billion.

[31; 32]

On 27 February 1981, MA DEP personnel collected additional water samples in the Shawsheen River. Each sample was analyzed for VOCs and SVOCs using EPA Method 624. QA/QC consisted of a matrix spike. The collection of a reference sample was not discussed [33]. Table 11 summarizes the analytical results.

Table 11

**Summary of Analytical Results:
Highest Concentrations Detected
Sediment Sample Analysis for Roy Bros Haulers 27 February 1981
Performed by Massachusetts Department of Environmental Quality Engineering**

Substance	Concentration		
	Upstream of Roy Bros	Downstream of Roy Bros	Near Burlington Intake
Chloroform	ND	2.1 ppb	ND
1,1,1-trichloroethane	2.4 ppb	2.1 ppb	2.4 ppb
Trichloroethylene	< 1.0 ppb	< 1.0 ppb	< 1.0 ppb
Methylene Chloride	ND	5.7 ppb	ND

ND = None detected.
ppb = Parts per billion.

[33; 34]

An in situ water sample was collected by MA DEP personnel in the adjacent wetlands on 21 April 1983. At the time of sampling, the eastern edge of the property was flooded due to excess rain. The results indicated a temperature of 9°C, pH of 5, and conductivity of 260 umhos per centimeter [35].

On 19 December 1995, START personnel collected eight sediment samples on site and in the adjacent wetlands. All sampling activities were conducted in accordance with the approved Task Work Plan dated 17 November 1995 with the exception of the locations of sample stations SD-07 and SD-08 which were altered to further determine the extent of migration of hazardous materials into the wetland. During sampling, a flame ionization detector (FID) was used to screen sediments prior to sample collection. A maximum concentration of 100 units above background was detected in excavated sample location SD-01 by a FID [2, p. 23].

Sediment samples collected by START personnel were submitted for VOC, SVOC, pesticide/PCB, total metals, and cyanide analyses through the EPA CLP. Sediment samples SD-05 and SD-06 were collected approximately 446 feet south of SD-01 upstream along Shawsheen River. SD-05 and SD-06 were considered the reference samples for samples SD-01, SD-02, SD-03, SD-04, SD-07, and SD-08 [72, pp. 11-12]. Table 12 summarizes the samples collected by START on 19 December 1995.

Table 12

Sample Summary: Roy Bros Haulers
Samples Collected by START on 19 December 1995

Sample Location No.	Traffic Report No.	Time (hrs)	Remarks	Sample Depth	Sample Source
MATRIX: Sediment					
SD-01	AKZ32 MAHX25	0915	Grab	6 inches	Sediment sample from west bank of Shawsheen River east of Roy Bros property; Sample location is 168 feet @ 93° from sample location SD-02; Material consists of sand, slight gravel, and trace organic material; FID reading (OVA) = 100 units above background.
SD-02	AKZ33 MAHX26	0940	Grab	6 inches	Sediment sample from the marsh; Sample location is 587 feet @ 93° from northeast corner of building; Material consists of sand, slight gravel, and organic material; Included extra material for MS/MSD for QC; FID reading (OVA) = 10 units above background.
SD-03	AKZ34 MAHX27	1300	Grab	6 inches	Sediment sample at edge of wetland (the PPE); the sample location is 306 feet @ 278° from sample station SD-02; Material consists of sand, gravel, and organic material; FID reading (OVA) = 16 units above background.
SD-04	AKZ35 MAHX28	1300	Grab	6 inches	Sediment duplicate of SD-03 for QC.
SD-05	AKZ36 MAHX29	1155	Grab	6 inches	Sediment sample from the marsh; Sample location is 431 feet @ 175° from sample location SD-02; Material consists of sand, silt, slight gravel, trace organic material; FID reading (OVA) = 0 units above background (reference sample for QC).

Table 12 (Concluded)

**Sample Summary: Roy Bros Haulers
Samples Collected by START on 19 December 1995**

Sample Location No.	Traffic Report No.	Time (hrs)	Remarks	Sample Depth	Sample Source
SD-06	MAHX30	1230	Grab	6 inches	Sediment sample from the marsh; Sample location is 431 feet @ 175° from sample location SD-02; Material consists of sand, silt, slight gravel, trace organic material; FID reading (OVA) = 0 units above background (reference sample for QC).
SD-07	AKZ37 MAHX31	1015	Grab	6 inches	Sediment sample from the marsh; Sample location is 96 feet @ 345° from sample location SD-02; Material consists of sand, silt, slight gravel, and organic material; FID reading (OVA) = 5 units above background.
SD-08	AKZ38 MAHX32	1100	Grab	6 inches	Sediment sample from the marsh; Sample location is 232 feet @ 262° from sample location SD-07; Material consists of sand, silt, slight gravel, organic material; FID reading (OVA) = 31 units above background.

MS/MSD = Matrix Spike/Matrix Spike Duplicate.
 QC = Quality Control.
 FID = Flame Ionization Detector.
 PPE = Probable Point of Entry.
 OVA = Organic vapor analyzer.

[2, pp. 16-23]

For each sample location, a compound or element is listed if it is detected at three times or greater than the reference sample concentration. Compounds or elements which occur at a concentration three times or greater than the reference concentration are designated by their approximate relative concentration above the reference value. However, if the element or compound is not detected in the reference sample, the reference's sample quantitation limit (SQL) (for organic analyses) or sample detection limit (SDL) (for inorganic analyses) is used as the reference value. These compounds or elements are listed only if they occurred at a value equal to or greater than the SQL or SDL and are designated by their approximate relative concentration above these values.

Samples collected from the Roy Bros property by START personnel were designated to be analyzed at standard routine analytical services (RAS) low detection levels. However, the contract detection limit (CDL) of each sample was elevated due to an elevated moisture content. In addition, selected semivolatile samples from samples SD-03 and SD-04 were diluted prior to analysis at the discretion of the EPA CLP testing laboratory, Envirosystems, Inc. [79].

Complete analytical results of START sampling activities including quantitation and detection limits are presented in Attachment J. Sample results qualified with a "J" on the analytical tables are considered approximate because of limitations identified during the CLP data validation. Table 13 summarizes the analytical results of the sediment samples collected by START on 19 December 1995 on the Roy Bros property.

Table 13
Summary of Analytical Results
Sediment Sample Analysis for Roy Bros Haulers 19 December 1995
Performed by START

Sample Location	Compound/Element	Sample Concentration	Reference Concentration	Comments
SD-01	SVOCs			
	Fluoranthene	840 $\mu\text{g/kg}$	820 U $\mu\text{g/kg}$	1 x SQL
	PESTICIDES/PCBs			
	4,4'-DDD	9.4 J $\mu\text{g/kg}$	8.2 U $\mu\text{g/kg}$	1.1 x SQL
	INORGANICS			
	Cadmium	1.7 mg/kg	0.24 mg/kg	7.1 x ref
	Zinc	387 mg/kg	28.4 mg/kg	13.6 x ref

Table 13 (Continued)

**Summary of Analytical Results
Sediment Sample Analysis for Roy Bros Haulers 19 December 1995
Performed by START**

Sample Location	Compound/ Element	Sample Concentration	Reference Concentration	Comments
SD-03	VOCs			
	Carbon Disulfide	48 J $\mu\text{g/kg}$	25 U $\mu\text{g/kg}$	1.9 x SQL
	SVOCs			
	Bis(2-ethylhexyl)phthalate	6,300 * $\mu\text{g/kg}$	820 U $\mu\text{g/kg}$	8 x SQL
	PESTICIDES/PCBs			
	4,4'-DDD	21 J $\mu\text{g/kg}$	8.2 U $\mu\text{g/kg}$	2.5 x SQL
	Aroclor 1254	130 $\mu\text{g/kg}$	82 U $\mu\text{g/kg}$	1.6 x SQL
	INORGANICS			
	Arsenic	21.9 mg/kg	2.60 mg/kg	8.4 x ref
	Chromium	48.3 mg/kg	15.5 mg/kg	3.7 x ref
	Mercury	0.10 J mg/kg	0.10 mg/kg	2 x CDL
SD-04	SVOCs			
	Bis(2-ethylhexyl)phthalate	7,500 * $\mu\text{g/kg}$	820 U $\mu\text{g/kg}$	9 x SQL
	PESTICIDES/PCBs			
	4,4'-DDD	20 $\mu\text{g/kg}$	8.2 U $\mu\text{g/kg}$	2.4 x SQL
	Aroclor 1254	120 $\mu\text{g/kg}$	82 U $\mu\text{g/kg}$	1.5 x SQL
	INORGANICS			
	Arsenic	18.6 mg/kg	2.60 mg/kg	7.2 x ref

Table 13 (Concluded)

**Summary of Analytical Results
Sediment Sample Analysis for Roy Bros Haulers 19 December 1995
Performed by START**

Sample Location	Compound/ Element	Sample Concentration	Reference Concentration	Comments
SD-08	VOCs			
	2-hexanone	200 J $\mu\text{g/kg}$	25 U $\mu\text{g/kg}$	8 x SQL
	INORGANICS			
	Beryllium	2.30 mg/kg	0.62 mg/kg	3.8 x ref
	Cadmium	0.80 mg/kg	0.24 mg/kg	3.3 x ref
	Mercury	0.19 J mg/kg	0.10 mg/kg	1.9 x CDL
	Selenium	4.7 J mg/kg	1.4 J mg/kg	3.4 x ref

- ref = Reference value or detection limit.
J = Quantitation is approximate due to limitations identified during the quality control review.
U = Material was analyzed, but not detected.
 $\mu\text{g/kg}$ = Micrograms per kilogram.
mg/kg = Milligrams per kilogram.
PCBs = Polychlorinated biphenyls.
VOCs = Volatile organic compounds.
SVOCs = Semivolatile organic compounds.
CDL = Contract detection limit, $\mu\text{g/kg}$.
* = Results reported from diluted analyses.

[79; 80]

Analytical results of samples collected from the Shawsheen River at sample location SD-01 indicate the presence of one SVOC, fluoranthene, and one pesticide compound, 4,4'-DDD, at concentrations above the associated SQL. Inorganic elements, cadmium and zinc, were also observed above reference concentrations at sample location SD-01 [79; 80].

Samples collected at the PPE detected the following VOCs and SVOCs at concentrations above the respective SQL: carbon disulfide and bis(2-ethylhexyl)phthalate. Results for bis(2-ethylhexyl)phthalate were reported from diluted analyses. The pesticide and PCB compounds, 4,4'-DDD and aroclor 1254, were observed at concentrations above the SQL. Analytical results also indicated the presence of the inorganic elements, arsenic and chromium, above reference concentrations at sample locations SD-03 and SD-04. Mercury was detected above the CDL at sample location SD-03 [79; 80].

Only one VOC, 2-hexanone at sample location SD-08, was detected downgradient of the PPE in the wetland area adjacent to the Roy Bros property. In addition, the following inorganic elements were observed above their respective reference and CDL concentrations at sample location SD-08: beryllium, cadmium, mercury, and selenium [79; 80].

Based on the facility's operational history, the historical disposal practices at the property, and the fact that 6 of 13 compounds detected in the sediment samples were previously reported at detectable concentrations in source samples, waste constituents detected in the sediment samples are likely attributable to on-site processes [21; 31; 32; 70; 71; 79; 80].

SOIL EXPOSURE PATHWAY

The property is easily accessible to the public. No visible barriers to access exist other than the adjacent wetlands which provide a natural barrier to access on the northern and eastern boundaries of the property [3; 61; 62; 63].

The nearest residence is located along Allen Road in Billerica, Massachusetts. The residence is located topographically upgradient and approximately 210 feet southwest of the former western infiltration lagoon. The residence is specified as Lot 26 Plate 90 on the Billerica Tax Assessor's Map [2, pp. 12-14; 66].

There are no schools or day-care facilities are known to be located within 200 feet of an area of observed contamination. The nearest school is the Ditson School located on Boston Road approximately 0.6 miles southeast of the property [3].

There are 50 workers on site [2, p. 2]. An estimated 5,765 people live within 1-radial mile and 81,724 people live within 4-radial miles of the Roy Bros property [17]. Table 14 summarizes the population located within 4-radial miles of the Roy Bros property.

Table 14

Estimated Population Within 4-Radial Miles of Roy Bros Haulers

Radial Distance From Roy Bros Haulers (miles)	Estimated Population
On-site	50
0.00 < 0.25	416
0.25 < 0.50	1,257
0.50 < 1.00	4,092
1.00 < 2.00	17,215

Table 14 (Concluded)

Estimated Population Within 4-Radial Miles of Roy Bros Haulers

Radial Distance From Roy Bros Haulers (miles)	Estimated Population
2.00 < 3.00	24,741
3.00 < 4.00	34,002
TOTAL	81,773

[3; 17; 61; 62; 63]

GFS personnel collected soil samples on 1 June 1995 which were previously discussed in this report. Soil sample analytical results are also summarized in Table 3 of the waste/source section of this report.

AIR PATHWAY

There are 50 workers employed by Roy Bros [2, p. 2]. The nearest residential property is located along Allen Road in Billerica, approximately 210 feet southwest of the former western infiltration lagoon [2, p. 12]. There are no known schools or day-care facilities within 200 feet of the Roy Bros property. An estimated 81,773 people are located within 4-radial miles of the property [17; 61; 62; 63].

During the 20 September 1995 START on-site reconnaissance, no measurements above background levels were detected by air monitoring instruments [2, pp. 1-9].

Federally-listed or proposed threatened and endangered species are known to occur within 4-radial miles of the Roy Bros property [49]. Approximately 1,600 acres of wetlands are located within 4-radial miles of the property. Wetland acreage was estimated using Department of the Interior Wetland Inventory Maps for Billerica, Boston North, Maynard, and Reading Quadrangles [2; 5; 82; 83; 84]. Table 15 summarizes sensitive environments within 4-radial miles of the Roy Bros property.

Table 15

Sensitive Environments Located Within 4-Radial Miles of Roy Bros Haulers

Radial Distance from Roy Bros (miles)	Sensitive Environment/Species (status)
On a source	Wetlands 1 acre
0 to 1/4	Wetlands 28 acres
1/4 to 1/2	Wetlands 35 acres
1/2 to 1	Wetlands 96 acres
1 to 2	Wetlands 411 acres
2 to 3	Wetlands 510 acres
3 to 4	1 Federal Endangered Species Candidate
3 to 4	1 Federal Endangered Species Candidate
3 to 4	Wetlands 520 acres

[2; 5; 49; 82; 83; 84]

No previous air sampling has been conducted at this site.

SUMMARY

The Roy Bros Haulers (Roy Bros) property is located at 764 Boston Road in Billerica, Middlesex County, Massachusetts. The 4.4-acre property is owned by Messrs. Leo, Arthur, and Maurice Roy and consists of an active chemical hauling operation; sparsely vegetated areas of former hazardous waste disposal and burn areas; and tanker and scrap storage locations. One building is located on the property housing the Roy Bros offices, two truck rinsing bays, a garage bay for truck repairs, a temporary drum storage area, and the on-site waste treatment facilities. North of the building, a empty tanker serves as an above-ground storage tank (AST) for leftover tank residue.

Since 1948, Roy Bros has transported liquid and dry industrial chemicals. Prior to 1969, effluent washwater from the on-site truck washing operation was discharged to a 1,000-gallon septic drywell located north of the building. Sludge and other residues collected from the rinsing process were disposed of in an unlined lagoon area located east of the main building. In 1969, the drywell was converted to a grease trap and the washwater was discharged into the existing lagoon area. Beginning in 1976, the effluent washwater was discharged into an unlined, infiltration lagoon area located immediately west of the building. In April 1981, Roy Bros was issued a permit tie-in with the Billerica sewer system.

The U.S. Environmental Protection Agency (EPA) identified Roy Bros, through a Surface Impoundment Assessment (SIA) report, as a potential hazardous waste site on 17 November 1980. The Massachusetts Department of Environmental Protection (MA DEP) performed a Preliminary Assessment (PA) of the Roy Bros property for the EPA on 15 December 1981. The PA indicated that the waste from Roy Bros was in both liquid and sludge form, and had toxic, flammable, and highly volatile characteristics. A Screening Site Inspection (SSI) was conducted by NUS Corporation Field Investigation Team (NUS/FIT) on the Roy Bros property in 1988.

Between 13 February 1981 and 18 May 1995, source sampling was conducted on the Roy Bros property. Samples were collected from the following source areas: the former westerly-located lagoon, a pile of cemented sludge, one open drum, five old tanker trucks, the former easterly-located lagoon, and in the vicinity of the former underground storage tank (UST) and drywell north of the building. Analytical results indicated the presence of eight volatile organic compounds (VOCs), eighteen semivolatile organic compounds (SVOCs), and seven inorganic elements.

Groundwater flow direction in the area of the Roy Bros property is estimated to be toward the east. The depth to the groundwater on the property is approximately 7 feet. The nearest public drinking water wells to the property, the Terrance Hall Road Wells Nos. 1 and 2, are located (b) (9) of the property; the wells are blended to service the Town of Burlington. According to the Billerica Board of Health, no private wells are located within 1-radial mile of the property. Public and private groundwater supplies located within 4-radial miles of the property serve an estimated 19,194 people.

Between 9 May 1986 to 1 June 1995, four rounds of groundwater sampling occurred at Roy Bros to determine the quality of groundwater and the extent to which the groundwater beneath the property has been impacted. Seven monitoring wells were installed and sampled on the Roy Bros property. Based on the facility's operational history, the historical disposal practices at the property, and the fact that 11 of 25 compounds detected in the groundwater samples were previously reported at detectable concentrations in source samples, waste constituents detected in groundwater samples are likely attributable to on-site processes.

The property is located adjacent to the Shawsheen River watershed, which is approximately 675 feet east of the former eastern lagoon area. The surface water runoff from the various source areas flows east to the abutting wetland area and into the Shawsheen River. The 15-mile downstream surface water pathway begins at the probable point of entry (PPE), located approximately 240 feet east of the northeast corner of the building at the edge of the wetland.

The Burlington Water Department operates a surface water intake on the Shawsheen River approximately 1.47 miles downstream of the property. An additional 15-mile downstream surface water pathway flows via the intake into a pipeline to the Mill Pond Reservoir, which provides an estimated 18,191 residents with drinking water. From the Mill Pond, water empties into the Maple Meadow Brook. Flowing in the northeast direction, the Maple Meadow Brook feeds into the Ipswich River.

Both Shawsheen and Ipswich Rivers are classified as Class B along their lengths within the 15-mile downstream pathway. The Mill Pond reservoir is categorized as Class A. The Massachusetts Natural Heritage and Endangered Species Program indicated that three Federally listed or proposed threatened and endangered species are known to occur along the 15-mile surface water pathway in the Shawsheen River Watershed. Approximately 17.5 miles of wetland frontage exist along the Shawsheen River watershed portion of the 15-mile surface water pathway.

Superfund Technical Assessment and Response Team (START) personnel conducted an on-site reconnaissance on 20 September 1995 of the Roy Bros property in Billerica, Massachusetts. On 19 December 1995, START conducted on-site and off-site sediment sampling at the Roy Bros property. Analytical results of the sediment sampling indicate that two VOCs, two SVOCs, one pesticide compound, one polychlorinated biphenyl (PCB) compound, and seven different inorganic elements were detected in START sediment samples above reference sample concentrations. Based on the facility's operational history, the historical disposal practices at the property, and the fact that six of 13 compounds detected in the sediment samples were previously reported at detectable concentrations in source samples, waste constituents detected in the sediment samples are likely attributable to on-site processes.

The property is easily accessible to the public. No visible barriers to access exist other than the adjacent wetlands which provide a natural barrier to access on the northern and eastern boundaries of the property. The nearest residence is located approximately 210 feet southwest of the former western infiltration lagoon. There are no schools or day-care facilities known to be located within 200 feet of an area of observed contamination. The nearest school is the Ditson School located on Boston Road approximately 0.6 miles southeast of the property. There are 50 workers on site. An estimated 5,765 people live within 1-radial mile and 81,724 people live within 4-radial miles of the Roy Bros property. Federally listed or proposed threatened and endangered species are known to occur within 4-radial miles of the Roy Bros property. Approximately 1,600 acres of wetlands are located within 4-radial miles of the property.

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ROY BROS HAULERS

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ATTACHMENT A

ROY BROS HAULERS

**SOURCE SAMPLE ANALYTICAL RESULTS
MA DEP**

Samples collected 13 February 1981

The Commonwealth of Massachusetts
Department Of Environmental Quality Engineering
Lawrence Experiment Station

GAS CHROMATOGRAPHY-MASS SPECTROMETRY ANALYSIS

OF PURGEABLE ORGANICS

CITY/TOWN	<u>BILLERICA</u>	COLLECTOR	<u>B. KELLEHER</u>
SOURCE	<u>Supernatant (Roy Bros.)</u>	COLLECTED	<u>2/13/81</u>
	<u>(Sludge in Tanker)</u>	RECEIVED	<u>2/13/81</u> ANALYZED <u>2/23/81</u>
	<u>W-3 W-4</u>	ANALYZED BY	<u>J. Pellerin and A. Flaherty</u>
SAMPLE NUMBER	<u>003565</u>	APPROVED BY	<u><i>Jap</i></u>

	<u>ug/l</u>		<u>ug/l</u>
Methylene Chloride	3,000	Methyl Isobutyl Ketone	*
Acetone	18,000	Cyclooctatetraene	*
Methyl Ethyl Ketone	35,900		
1,1,1 Trichloroethane	150		
Toluene	300		
Ethyl Benzene	75		
Xylenes	290		
Isopropanol	*		
2-butanol	*		
3-methyl-2-butanone	*		

The sample was analyzed according to the EPA procedure, "Method 624-Organics by Purge and Trap." Only those organic compounds which have a significant vapor pressure in aqueous solution at room temperature and thus are amenable to partition by purging are detected by this procedure.

Quality control consisted of running laboratory blanks, duplicates, spikes and spiking each run with a three compound internal standard.

L = less than 1.0 ug/l.

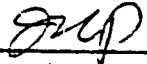
* = No standard available for quantitation. The mass spectrum obtained was compared to a mass spectral index and a mass spectral data base for identification.

REMARKS:

The Commonwealth of Massachusetts
Department Of Environmental Quality Engineering
Lawrence Experiment Station

GAS CHROMATOGRAPHY-MASS SPECTROMETRY ANALYSIS

OF PURGEABLE ORGANICS

CITY/TOWN	<u>BILLERICA</u>	COLLECTOR	<u>B. Kelleher</u>
SOURCE	<u>Roy Bros.</u>	COLLECTED	<u>2/13/81</u>
	<u>Lagoon</u>	RECEIVED	<u>2/13/81</u> <u>2/18/81</u>
	<u>W-1</u>	ANALYZED BY	<u>J. Pellerin and A. Flaherty</u>
SAMPLE NUMBER	<u>003563</u>	APPROVED BY	<u></u>

ug/l

ug/l

Methylene Chloride	1.0	Methyl Cyclonexane	*
Acetone	7060	Methyl Isobutyl Ketone	*
Methyl Ethyl Ketone	36600	1-Butanol	
1,1,1-Trichloroethane	2.6	Cyclooctatetraene	*
Toluene	2690		
Ethyl Benzene	157		
Xylenes	763		
Isopropanol	*		
Isobutanol	*		

The sample was analyzed according to the EPA procedure, "Method 624-Organics by Purge and Trap." Only those organic compounds which have a significant vapor pressure in aqueous solution at room temperature and thus are amenable to partition by purging are detected by this procedure.

Quality control consisted of running laboratory blanks, duplicates, spikes and spiking each run with a three compound internal standard.

L = less than 1.0 ug/l.

* = No standard available for quantitation. The mass spectrum obtained was compared to a mass spectral index and a mass spectral data base for identification.

REMARKS:

The Commonwealth of Massachusetts
Department Of Environmental Quality Engineering
Lawrence Experiment Station

GAS CHROMATOGRAPHY-MASS SPECTROMETRY ANALYSIS

OF PURGEABLE ORGANICS

CITY/TOWN	<u>BILLERICA</u>	COLLECTOR	<u>B. Kelleher</u>
SOURCE	<u>Roy Bros.</u>	COLLECTED	<u>2/13/81</u>
	<u>Wetland behind site</u>	RECEIVED	<u>2/13/81</u> <u>ANALYZED 2/24/81</u>
	<u>W-2 (W-3)</u>	ANALYZED BY	<u>J. Pellerin and A. Flaherty</u>
SAMPLE NUMBER	<u>003566</u>	APPROVED BY	<u><i>[Signature]</i></u>

	<u>ug/l</u>	<u>ug/l</u>
Methylene Chloride	4.2	
Acetone	221	
Methyl Ethyl Ketone	241	
1,1,1 Trichloroethylene	5.7	
Toluene	204	
Ethyl Benzene	1.2	
Xylenes	11.9	
3-methyl-2-butanone	*	
Methyl Isobutyl Ketone	*	

The sample was analyzed according to the EPA procedure, "Method 624-Organics by Purge and Trap." Only those organic compounds which have a significant vapor pressure in aqueous solution at room temperature and thus are amenable to partition by purging are detected by this procedure.

Quality control consisted of running laboratory blanks, duplicates, spikes and spiking each run with a three compound internal standard.

L = less than 1.0 ug/l.

* = No standard available for quantitation. The mass spectrum obtained was compared to a mass spectral index and a mass spectral data base for identification.

REMARKS:

The Commonwealth of Massachusetts
Department Of Environmental Quality Engineering
Lawrence Experiment Station

GAS CHROMATOGRAPHY-MASS SPECTROMETRY ANALYSIS

OF PURGEABLE ORGANICS

CITY/TOWN	<u>BILLERICA</u>	COLLECTOR	<u>B. Kelleher</u>
SOURCE	<u>Standing Water</u>	COLLECTED	<u>2/13/81</u>
	<u>on site (Roy Bros.)</u>	RECEIVED	<u>2/13/81</u> ANALYZED <u>2/19/81</u>
	<u>W-2</u>	ANALYZED BY	<u>J. Pellerin and A. Flaherty</u>
SAMPLE NUMBER	<u>003564</u>	APPROVED BY	<u><i>JLP</i></u>

ug/l

ug/l

Methylene Chloride	25	Methyl Isobutyl Ketone	*
Acetone	650		
MEK	12,300		
1,1,1 Trichloroethane	4.8		
Toluene	115		
Ethyl Benzene	4.6		
Xylenes	27		
2-Butanol	*		
3-methyl 2-butanone	*		
Cyclooctatetraene	*		

The sample was analyzed according to the EPA procedure, "Method 624-Organics by Purge and Trap." Only those organic compounds which have a significant vapor pressure in aqueous solution at room temperature and thus are amenable to partition by purging are detected by this procedure.

Quality control consisted of running laboratory blanks, duplicates, spikes and spiking each run with a three compound internal standard.

L = less than 1.0 ug/l.


* = No standard available for quantitation. The mass spectrum obtained was compared to a mass spectral index and a mass spectral data base for identification.

REMARKS:

The Commonwealth of Massachusetts
 Department Of Environmental Quality Engineering
 Lawrence Experiment Station

GAS CHROMATOGRAPHY-MASS SPECTROMETRY ANALYSIS

OF PURGEABLE ORGANICS

CITY/TOWN	<u>BURLINGTON</u>	COLLECTOR	<u>Kelleher-Keene</u>
SOURCE	<u>Final ^{treated} Effluent</u>	COLLECTED	<u>2/13/81</u>
	<u>WTP</u>	RECEIVED	<u>2/13/81</u> ANALYZED <u>2/25/81</u>
	<u>W-6</u>	ANALYZED BY	<u>J. Pellerin and A. Flaherty</u>
SAMPLE NUMBER	<u>003568</u>	APPROVED BY	<u></u>

	<u>ug/l</u>	<u>ug/l</u>
Chloroform	47.4	
1,1,1 Trichloroethane	1.4	
Bromodichloromethane	29.4	
Trichloroethylene	L	
Chlorodibromomethane	16.8	

The sample was analyzed according to the EPA procedure, "Method 624-Organics by Purge and Trap." Only those organic compounds which have a significant vapor pressure in aqueous solution at room temperature and thus are amenable to partition by purging are detected by this procedure.

Quality control consisted of running laboratory blanks, duplicates, spikes and spiking each run with a three compound internal standard.

L = less than 1.0 ug/l.

* = No standard available for quantitation. The mass spectrum obtained was compared to a mass spectral index and a mass spectral data base for identification.

REMARKS:

ATTACHMENT B

ROY BROS HAULERS

**SURFACE WATER SAMPLE ANALYTICAL RESULTS
MA DEP**

Samples collected 24 February 1981

The Commonwealth of Massachusetts

Department Of Environmental Quality Engineering

Lawrence Experiment Station

GAS CHROMATOGRAPHY-MASS SPECTROMETRY ANALYSIS

OF PURGEABLE ORGANICS

*copy not to supply
Saulington WTP
WSH*

CITY/TOWN	<u>BILLERICA</u>	COLLECTOR	<u>B. KELLEHER</u>
SOURCE	<u>Near Intake</u>	COLLECTED	<u>Unknown</u>
	<u>Shawsheen River</u>	RECEIVED	<u>Unknown</u> ANALYZED <u>3/3/81</u>
		ANALYZED BY	<u>J. Pellerin and A. Flaherty</u>
SAMPLE NUMBER	<u>003690</u>	APPROVED BY	<u>JW</u>

	<u>ug/l</u>	<u>ug/l</u>
1,1,1 Trichloroethane	1.4	
Trichloroethylene	L	

The sample was analyzed according to the EPA procedure, "Method 624-Organics by Purge and Trap." Only those organic compounds which have a significant vapor pressure in aqueous solution at room temperature and thus are amenable to partition by purging are detected by this procedure.

Quality control consisted of running laboratory blanks, duplicates, spikes and spiking each run with a three compound internal standard.

L = less than 1.0 ug/l.

* = No standard available for quantitation. The mass spectrum obtained was compared to a mass spectral index and a mass spectral data base for identification.

REMARKS:

The Commonwealth of Massachusetts
Department of Environmental Quality Engineering
Lawrence Experiment Station

GAS CHROMATOGRAPHY-MASS SPECTROMETRY ANALYSIS

OF PURGEABLE ORGANICS

CITY/TOWN	<u>BILLERICA</u>	COLLECTOR	<u>B. KELLEHER</u>
SOURCE	<u>SHAWSHEEN RIVER</u>	COLLECTED	<u>UNKNOWN</u>
	<u>DOWNSTREAM - ROY BROTHERS</u>	RECEIVED	<u>UNKNOWN</u> <u>ANALYZED</u> <u>3/4/81</u>
		ANALYZED BY	<u>J. PELLERIN AND A. FLAHERTY</u>
SAMPLE NUMBER	<u>003689</u>	APPROVED BY	<u><i>jeop</i></u>

	<u>ug/l</u>	<u>ug/l</u>
Methylene Chloride	5.7	
Chloroform	2.1	
1,1,1 Trichloroethane	2.1	
Trichloroethylene	L	
Benzene	L	

The sample was analyzed according to the EPA procedure, "Method 624-Organics by Purge and Trap." Only those organic compounds which have a significant vapor pressure in aqueous solution at room temperature and thus are amenable to partition by purging are detected by this procedure.

Quality control consisted of running laboratory blanks, duplicates, spikes and spiking each run with a three compound internal standard.

L = less than 1.0 ug/l.

* = No standard available for quantitation. The mass spectrum obtained was compared to a mass spectral index and a mass spectral data base for identification.

REMARKS:

The Commonwealth of Massachusetts
Department Of Environmental Quality Engineering
Lawrence Experiment Station

GAS CHROMATOGRAPHY-MASS SPECTROMETRY ANALYSIS

OF PURGEABLE ORGANICS

CITY/TOWN	<u>BURLINGTON</u>	COLLECTOR	<u>Mullins</u>
SOURCE	<u>W. T. P.</u>	COLLECTED	<u>February 24, 1981</u>
	<u>Raw Water entering</u>	RECEIVED	<u>3/5/81</u> <u>3/9/81</u>
		ANALYZED BY	<u>J. Pellerin and A. Flaherty</u>
SAMPLE NUMBER	<u>003732</u>	APPROVED BY	<u>JGP</u>

	<u>ug/l</u>	<u>ug/l</u>
1,1,1 Trichloroethane	L	
Trichloroethylene	L	

The sample was analyzed according to the EPA procedure, "Method 624-Organics by Purge and Trap." Only those organic compounds which have a significant vapor pressure in aqueous solution at room temperature and thus are amenable to partition by purging are detected by this procedure.

Quality control consisted of running laboratory blanks, duplicates, spikes and spiking each run with a three compound internal standard.

L = less than 1.0 ug/l.

* = No standard available for quantitation. The mass spectrum obtained was compared to a mass spectral index and a mass spectral data base for identification.

REMARKS:

ATTACHMENT C

ROY BROS HAULERS

**SOURCE SAMPLE ANALYTICAL RESULTS
THORSTENSEN LABORATORY, INC.**

Samples collected 22 January 1985

Thorstensen Laboratory, Inc.

66 LITTLETON RD. - WESTFORD, MA 01886

(617) 692-8395

Report Number: C-001-7888

Report Date: Feb. 08, 1985

Client:

Sample Data:

ATTN: Moe Roy
Roy Brothers, Inc.
764 Boston Rd.
Pinehurst, MA 01866

Date Received: Jan. 22, 1985

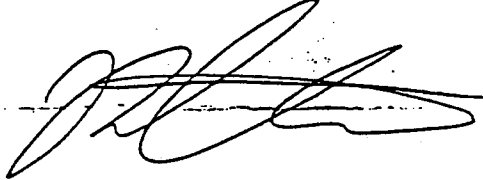
Labeled:
Effluent Sample

CERTIFICATE OF ANALYSIS

Test Parameter:

Results:

pH, su	8.7
BOD5, mg/l	1130.
Total Suspended Solids, mg/l	48.
Oil and Grease, mg/l	31.
Total Chrome, mg/l	22.
Hex Chrome, mg/l	1.3
Phenols, mg/l	.72



Peter T. Thorstensen, for
Thorstensen Laboratory, Inc.

PTT/wp

ATTACHMENT D

ROY BROS HAULERS

**SOURCE SAMPLE ANALYTICAL RESULTS
MA DEP**

Samples collected 15 May 1985

THE COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF ENVIRONMENTAL QUALITY ENGINEERING
LAWRENCE EXPERIMENT STATION
SPECIAL ANALYSIS

SOURCE A Billerica, Roy Bros. Trucking, Effluent

CITY/TOWN

CM

SOURCE B Chelmsford, Silicon Transistor Corp., Effluent

COLLECTOR

Adams

SOURCE C

SOURCE D

SOURCE E

SOURCE F

A B C D E F

SAMPLE NUMBER	R7556	R7557				
DATE OF COLLECTION	5-14/15-85	5-15-85				
DATE OF RECEIPT	5-15-85	----->				
DATE ANALYZED						
LEAD	<0.02	<0.02				
ALUMINUM	6.7	0.43				
CADMIUM	0.04	<0.02				
CHROMIUM	0.08	<0.02				
COPPER	0.15	0.05				
IRON	0.70	0.17				
MANGANESE	0.05	<0.02				
NICKEL	<0.05	<0.05				
LEAD	<0.04	<0.04				
ZINC	0.20	0.14				
MERCURY	not enough sample					

R4 RKS

ATTACHMENT E

ROY BROS HAULERS

**GROUNDWATER SAMPLE ANALYTICAL RESULTS
ENVIRONMENTAL FIELD SERVICES, INC.**

Samples collected 9 May 1986

Lab Number: 6814-6
 Sample Designation: B-1
 Date analyzed: 5/13/86
 Matrix: WATER

VOLATILE ORGANICS	CONCENTRATION		DETECTION LIMIT (ug/L)
	REP. 1 (ug/L)	REP. 2 (ug/L)	
CHLOROMETHANE	BDL	BDL	10
VINYL CHLORIDE	BDL	BDL	10
CHLOROETHANE	BDL	BDL	5
BROMOMETHANE	BDL	BDL	10
METHYLENE CHLORIDE	BDL	BDL	5
1,1-DICHLOROETHYLENE	BDL	BDL	5
1,1-DICHLOROETHANE	TRACE	TRACE	5
1,2-trans-DICHLOROETHYLENE	BDL	TRACE	5
CHLOROFORM	BDL	BDL	5
1,2-DICHLOROETHANE	BDL	BDL	5
1,1,1-TRICHLOROETHANE	BDL	BDL	5
CARBON TETRACHLORIDE	BDL	BDL	5
BROMODICHLOROMETHANE	BDL	BDL	5
1,2-DICHLOROPROPANE	BDL	BDL	5
1,3-trans-DICHLOROPROPENE	BDL	BDL	5
TRICHLOROETHYLENE	BDL	BDL	5
BENZENE	21	17	5
1,3-cis-DICHLOROPROPENE	BDL	BDL	5
1,1,2-TRICHLOROETHANE	BDL	BDL	5
2-CHLOROETHYL VINYL ETHER	BDL	BDL	5
DIBROMOCHLOROMETHANE	BDL	BDL	5
BROMOFORM	BDL	BDL	5
TETRACHLOROETHYLENE	BDL	BDL	5
1,1,2,2-TETRACHLOROETHANE	BDL	BDL	5
TOLUENE	14	14	5
CHLOROBENZENE	BDL	BDL	5
ETHYLBENZENE	6	6	5
ACETONE	BDL	BDL	25
CARBON DISULFIDE	BDL	BDL	5
THF	BDL	BDL	25
MEK	BDL	BDL	25
VINYL ACETATE	BDL	BDL	10
MIBK	BDL	BDL	25
2-HEXANONE	BDL	BDL	25
STYRENE	BDL	BDL	5
XYLENES	BDL	BDL	5

"Trace" denotes probable presence below listed detection limit.

BDL = BELOW DETECTION LIMIT

METHOD REFERENCE: EPA 600/4-82-057 METHOD 624

COPY

Lab Number: 6814-7
 Sample Designation: B-2
 Date analyzed: 5/13/86
 Matrix: WATER

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
CHLOROMETHANE	BDL	10
VINYL CHLORIDE	BDL	10
CHLOROETHANE	BDL	5
BROMOMETHANE	BDL	10
METHYLENE CHLORIDE	BDL	5
1,1-DICHLOROETHYLENE	BDL	5
1,1-DICHLOROETHANE	TRACE	5
1,2-trans-DICHLOROETHYLENE	TRACE	5
CHLOROFORM	TRACE	5
1,2-DICHLOROETHANE	BDL	5
1,1,1-TRICHLOROETHANE	BDL	5
CARBON TETRACHLORIDE	BDL	5
BROMODICHLOROMETHANE	BDL	5
1,2-DICHLOROPROPANE	BDL	5
1,3-trans-DICHLOROPROPENE	BDL	5
TRICHLOROETHYLENE	BDL	5
BENZENE	5	5
1,3-cis-DICHLOROPROPENE	BDL	5
1,1,2-TRICHLOROETHANE	BDL	5
2-CHLOROETHYL VINYL ETHER	BDL	5
DIBROMOCHLOROMETHANE	BDL	5
BROMOFORM	BDL	5
TETRACHLOROETHYLENE	BDL	5
1,1,2,2-TETRACHLOROETHANE	BDL	5
TOLUENE	BDL	5
CHLOROBENZENE	TRACE	5
ETHYLBENZENE	BDL	5
ACETONE	BDL	25
CARBON DISULFIDE	BDL	5
THF	TRACE	25
MEK	BDL	25
VINYL ACETATE	BDL	10
MIBK	BDL	25
2-HEXANONE	BDL	25
STYRENE	BDL	5
XYLENES	BDL	5

"Trace" denotes probable presence below listed detection limit.

BDL = BELOW DETECTION LIMIT
 METHOD REFERENCE: EPA 600/4-82-057 METHOD 624

COPY

Lab Number: 6814-8
 Sample Designation: B-3
 Date analyzed: 5/14/86
 Matrix: WATER

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
CHLOROMETHANE	BDL	10
VINYL CHLORIDE	BDL	10
CHLOROETHANE	BDL	5
BROMOMETHANE	BDL	10
METHYLENE CHLORIDE	BDL	5
1,1-DICHLOROETHYLENE	BDL	5
1,1-DICHLOROETHANE	BDL	5
1,2-trans-DICHLOROETHYLENE	BDL	5
CHLOROFORM	BDL	5
1,2-DICHLOROETHANE	BDL	5
1,1,1-TRICHLOROETHANE	BDL	5
CARBON TETRACHLORIDE	BDL	5
BROMODICHLOROMETHANE	BDL	5
1,2-DICHLOROPROPANE	BDL	5
1,3-trans-DICHLOROPROPENE	BDL	5
TRICHLOROETHYLENE	BDL	5
BENZENE	TRACE	5
1,3-cis-DICHLOROPROPENE	BDL	5
1,1,2-TRICHLOROETHANE	BDL	5
2-CHLOROETHYL VINYL ETHER	BDL	5
DIBROMOCHLOROMETHANE	BDL	5
BROMOFORM	BDL	5
TETRACHLOROETHYLENE	BDL	5
1,1,2,2-TETRACHLOROETHANE	BDL	5
TOLUENE	BDL	5
CHLOROBENZENE	BDL	5
ETHYLBENZENE	BDL	5
ACETONE	BDL	25
CARBON DISULFIDE	BDL	5
THF	130	25
MEK	BDL	25
VINYL ACETATE	BDL	10
MIBK	BDL	25
2-HEXANONE	BDL	25
STYRENE	BDL	5
XYLENES	BDL	5

"Trace" denotes probable presence below listed detection limit.

BDL = BELOW DETECTION LIMIT
 METHOD REFERENCE: EPA 600/4-82-057 METHOD 624

COPY

Lab Number: 6814-9
 Sample Designation: B-4
 Date analyzed: 5/13/86
 Matrix: WATER

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
CHLOROMETHANE	BDL	10
VINYL CHLORIDE	BDL	10
CHLOROETHANE	42	5
BROMOMETHANE	BDL	10
METHYLENE CHLORIDE	BDL	5
1,1-DICHLOROETHYLENE	BDL	5
1,1-DICHLOROETHANE	TRACE	5
1,2-trans-DICHLOROETHYLENE	BDL	5
CHLOROFORM	BDL	5
1,2-DICHLOROETHANE	BDL	5
1,1,1-TRICHLOROETHANE	BDL	5
CARBON TETRACHLORIDE	BDL	5
BROMODICHLOROMETHANE	BDL	5
1,2-DICHLOROPROPANE	BDL	5
1,3-trans-DICHLOROPROPENE	BDL	5
TRICHLOROETHYLENE	BDL	5
BENZENE	TRACE	5
1,3-cis-DICHLOROPROPENE	BDL	5
1,1,2-TRICHLOROETHANE	BDL	5
2-CHLOROETHYL VINYL ETHER	BDL	5
DIBROMOCHLOROMETHANE	BDL	5
BROMOFORM	BDL	5
TETRACHLOROETHYLENE	BDL	5
1,1,2,2-TETRACHLOROETHANE	BDL	5
TOLUENE	BDL	5
CHLOROBENZENE	BDL	5
ETHYLBENZENE	TRACE	5
ACETONE	47	25
CARBON DISULFIDE	BDL	5
THF	61	25
MEK	620	25
VINYL ACETATE	BDL	10
MIBK	680	25
2-HEXANONE	BDL	25
STYRENE	BDL	5
XYLENES	TRACE	5

"Trace" denotes probable presence below listed detection limit.

BDL = BELOW DETECTION LIMIT
 METHOD REFERENCE: EPA 600/4-82-057 METHOD 624

COPY

Lab Number: 6814-10
 Sample Designation: B-5
 Date analyzed: 5/14/86
 Matrix: WATER

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
CHLOROMETHANE	BDL	10
VINYL CHLORIDE	BDL	10
CHLOROETHANE	BDL	5
BROMOMETHANE	BDL	10
METHYLENE CHLORIDE	BDL	5
1,1-DICHLOROETHYLENE	BDL	5
1,1-DICHLOROETHANE	TRACE	5
1,2-trans-DICHLOROETHYLENE	240	5
CHLOROFORM	BDL	5
1,2-DICHLOROETHANE	BDL	5
1,1,1-TRICHLOROETHANE	TRACE	5
CARBON TETRACHLORIDE	BDL	5
BROMODICHLOROMETHANE	BDL	5
1,2-DICHLOROPROPANE	BDL	5
1,3-trans-DICHLOROPROPENE	BDL	5
TRICHLOROETHYLENE	TRACE	5
BENZENE	TRACE	5
1,3-cis-DICHLOROPROPENE	BDL	5
1,1,2-TRICHLOROETHANE	BDL	5
2-CHLOROETHYL VINYL ETHER	BDL	5
DIBROMOCHLOROMETHANE	BDL	5
BROMOFORM	BDL	5
TETRACHLOROETHYLENE	BDL	5
1,1,2,2-TETRACHLOROETHANE	BDL	5
TOLUENE	190	5
CHLOROBENZENE	BDL	5
ETHYLBENZENE	350	5
ACETONE	BDL	25
CARBON DISULFIDE	BDL	5
THF	BDL	25
MEK	BDL	25
VINYL ACETATE	BDL	10
MIBK	BDL	25
2-HEXANONE	BDL	25
STYRENE	45	5
XYLENES	90	5

"Trace" denotes probable presence below listed detection limit.

BDL = BELOW DETECTION LIMIT.

METHOD REFERENCE: EPA 600/4-82-057 METHOD 624

COPY

Lab Number: 6814-11
Sample Designation: B-1
Date Extracted: 5/13/86
Date Analyzed: 5/14/86

ACID EXTRACTABLE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
PHENOL	BDL	100
2-CHLOROPHENOL	BDL	100
2-NITROPHENOL	BDL	100
2,4-DIMETHYLPHENOL	BDL	100
2,4-DICHLOROPHENOL	BDL	100
P-CHLORO-M-CRESOL	BDL	100
2,4,6-TRICHLOROPHENOL	BDL	100
2,4-DINITROPHENOL	BDL	500
4-NITROPHENOL	BDL	500
4,6-DINITRO-O-CRESOL	BDL	500
PENTACHLOROPHENOL	BDL	100
BENZOIC ACID *	TRACE	500
2-METHYLPHENOL *	BDL	100
4-METHYLPHENOL *	BDL	100
2,4,5-TRICHLOROPHENOL *	BDL	500

"Trace" denotes probable presence below listed detection limit.
Detection limit raised by the presence of non-listed compounds.

* Additional CERCLA Hazardous Substances

BDL = BELOW DETECTION LIMIT

METHOD REFERENCE: EPA 600/4-82-057 METHOD 625

COPY

Lab Number: 6814-12
Sample Designation: B-2
Date Extracted: 5/13/86
Date Analyzed: 5/14/86

ACID EXTRACTABLE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
PHENOL	TRACE	10
2-CHLOROPHENOL	BDL	10
2-NITROPHENOL	BDL	10
2,4-DIMETHYLPHENOL	BDL	10
2,4-DICHLOROPHENOL	BDL	10
P-CHLORO-M-CRESOL	BDL	10
2,4,6-TRICHLOROPHENOL	BDL	10
2,4-DINITROPHENOL	BDL	50
4-NITROPHENOL	BDL	50
4,6-DINITRO-O-CRESOL	BDL	50
PENTACHLOROPHENOL	20	10
BENZOIC ACID *	BDL	50
2-METHYLPHENOL *	BDL	10
4-METHYLPHENOL *	BDL	10
2,4,5-TRICHLOROPHENOL *	BDL	50

"Trace" denotes probable presence below listed detection limit.

* Additional CERCLA Hazardous Substances

BDL = BELOW DETECTION LIMIT

METHOD REFERENCE: EPA 600/4-82-057 METHOD 625

COPY

Lab Number: 6814-13
Sample Designation: B-3
Date Extracted: 5/13/86
Date Analyzed: 5/14/86

ACID EXTRACTABLE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
PHENOL	BDL	50
2-CHLOROPHENOL	BDL	50
2-NITROPHENOL	BDL	50
2,4-DIMETHYLPHENOL	BDL	50
2,4-DICHLOROPHENOL	BDL	50
P-CHLORO-M-CRESOL	BDL	50
2,4,6-TRICHLOROPHENOL	BDL	50
2,4-DINITROPHENOL	BDL	250
4-NITROPHENOL	BDL	250
4,6-DINITRO-O-CRESOL	BDL	250
PENTACHLOROPHENOL	BDL	50
BENZOIC ACID *	BDL	250
2-METHYLPHENOL *	BDL	50
4-METHYLPHENOL *	BDL	50
2,4,5-TRICHLOROPHENOL *	BDL	250

Detection limit raised by the presence of non-listed compounds.

* Additional CERCLA Hazardous Substances

BDL = BELOW DETECTION LIMIT
METHOD REFERENCE: EPA 600/4-82-057 METHOD 625

COPY

Lab Number: 6814-14
Sample Designation: B-4
Date Extracted: 5/13/86
Date Analyzed: 5/14/86

ACID EXTRACTABLE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
PHENOL	BDL	50
2-CHLOROPHENOL	BDL	50
2-NITROPHENOL	BDL	50
2,4-DIMETHYLPHENOL	BDL	50
2,4-DICHLOROPHENOL	BDL	50
P-CHLORO-M-CRESOL	BDL	50
2,4,6-TRICHLOROPHENOL	BDL	50
2,4-DINITROPHENOL	BDL	250
4-NITROPHENOL	BDL	250
4,6-DINITRO-O-CRESOL	BDL	250
PENTACHLOROPHENOL	BDL	50
BENZOIC ACID *	BDL	250
2-METHYLPHENOL *	BDL	50
4-METHYLPHENOL *	BDL	50
2,4,5-TRICHLOROPHENOL *	BDL	250

Detection limit raised by the presence of non-listed compounds.

* Additional CERCLA Hazardous Substances

BDL = BELOW DETECTION LIMIT
METHOD REFERENCE: EPA 600/4-82-057

diluted 5X

COPY

ATTACHMENT F

ROY BROS HAULERS

**GROUNDWATER SAMPLE ANALYTICAL RESULTS
AMERICAN ENVIRONMENTAL LABORATORIES, INC.**

Samples collected 11 September 1992



AMERICAN ENVIRONMENTAL
LABORATORIES, INC.

REPORT NUMBER: AA03002

PAGE 1 OF 2

- LAB ID #: MA076 -

TO: Roy Brothers, Inc.
764 Boston Rd.
Pinehurst, MA 01866
ATTN: Arthur Roy

PO/ID NUMBER : PER LEO AA03002

SAMPLE DESCRIPTION: Well #1

DATE RECEIVED : 09/11/92

DATE ANALYZED : 09/15/92

DATE COLLECTED : 09/11/92

COLLECTED BY : AEL - EL

MATRIX : Wastewater

- ANALYTICAL RESULTS -

PARAMETER	RESULT	UOM	MDL	METHOD
Benzene	ND	UG/L	5.00	EPA # 624
Bromodichloromethane (THM)	ND	UG/L	5.00	EPA # 624
Bromoform (THM)	ND	UG/L	5.00	EPA # 624
Bromomethane	ND	UG/L	5.00	EPA # 624
Carbon Tetrachloride	ND	UG/L	5.00	EPA # 624
Chlorobenzene	ND	UG/L	5.00	EPA # 624
Chloroethane	ND	UG/L	5.00	EPA # 624
2-Chloroethylvinyl ether	ND	UG/L	10.00	EPA # 624
Chloroform (THM)	ND	UG/L	5.00	EPA # 624
Chloromethane	ND	UG/L	5.00	EPA # 624
Dibromochloromethane (THM)	ND	UG/L	5.00	EPA # 624
1,2-Dichlorobenzene	ND	UG/L	5.00	EPA # 624
1,3-Dichlorobenzene	ND	UG/L	5.00	EPA # 624
1,4-Dichlorobenzene	ND	UG/L	5.00	EPA # 624
1,1-Dichloroethane	ND	UG/L	5.00	EPA # 624
1,2-Dichloroethane	ND	UG/L	5.00	EPA # 624
1,1-Dichloroethene	ND	UG/L	5.00	EPA # 624
Trans-1,2-Dichloroethene	ND	UG/L	5.00	EPA # 624
1,2-Dichloropropane	ND	UG/L	5.00	EPA # 624
Cis-1,3-Dichloropropene	ND	UG/L	5.00	EPA # 624
Trans-1,3-Dichloropropene	ND	UG/L	5.00	EPA # 624
Ethyl Benzene	ND	UG/L	5.00	EPA # 624
Methylene Chloride	ND	UG/L	10.00	EPA # 624
1,1,2,2 Tetrachloroethane	ND	UG/L	5.00	EPA # 624
Tetrachloroethene	ND	UG/L	5.00	EPA # 624
Toluene	ND	UG/L	5.00	EPA # 624
1,1,1 Trichloroethane	ND	UG/L	5.00	EPA # 624
1,1,2 Trichloroethane	ND	UG/L	5.00	EPA # 624
Trichloroethene	ND	UG/L	5.00	EPA # 624
Trichlorofluoromethane	ND	UG/L	5.00	EPA # 624
Vinyl Chloride	ND	UG/L	5.00	EPA # 624
Total Xylenes	ND	UG/L	5.00	EPA # 624

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AMERICAN ENVIRONMENTAL
LABORATORIES, INC.

REPORT NUMBER: AA03002

PAGE 2 OF 2

PARAMETER	RESULT	UOM	MDL	METHOD
DILUTION FACTOR	NONE	TIMES		

ANALYZED BY: (L)

All multi-component analyses are reported utilizing the Exception Method. Only those compounds with levels above our laboratories level of detection are reported. Please refer to Appendix A for custody and quality control data. These results apply only to the actual sample tested; the integrity of the results is dependent upon the quality of the sampling. American Environmental Laboratories shall be held harmless for any liability arising from the interpretation of such results.

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- Exceeds EPA Guidelines
IDL - Minimum Detection Level
OM - Unit Of Measure

Please Recycle ♻

TNTC - Too Numerous To Count
ND - Not Detected



AMERICAN ENVIRONMENTAL
LABORATORIES, INC.

- LAB ID #: MA076 -

REPORT NUMBER: AA03002

PAGE 1 OF 2

TO: Roy Brothers, Inc.
764 Boston Rd.
Pinehurst, MA 01866
ATTN: Arthur Roy

PO/ID NUMBER : PER LEO AA03002

SAMPLE DESCRIPTION: Well #1

DATE RECEIVED : 09/11/92

DATE ANALYZED : 09/17/92

DATE COLLECTED : 09/11/92

COLLECTED BY : AEL - EL

MATRIX : Wastewater

- ANALYTICAL RESULTS -

PARAMETER	RESULT	UOM	MDL	METHOD
Acenaphthene	ND	UG/L	5.0	EPA # 625
Acenaphthylene	ND	UG/L	5.0	EPA # 625
Aldrin	ND	UG/L	5.0	EPA # 625
Anthracene	ND	UG/L	5.0	EPA # 625
b-BHC	ND	UG/L	5.0	EPA # 625
γ-BHC (Lindane)	ND	UG/L	5.0	EPA # 625
4-Bromophenyl phenyl ether	ND	UG/L	5.0	EPA # 625
Benzo(a)anthracene	ND	UG/L	5.0	EPA # 625
Benzo(b)fluoranthene	ND	UG/L	5.0	EPA # 625
Benzo(k)fluoranthene	ND	UG/L	5.0	EPA # 625
Benzo(a)pyrene	ND	UG/L	5.0	EPA # 625
Benzo(g,h,i)perylene	ND	UG/L	5.0	EPA # 625
Bis(2-chloroethyl)ether	ND	UG/L	5.0	EPA # 625
Bis(2-chloroethoxy)methane	ND	UG/L	5.0	EPA # 625
Benzyl butyl phthalate	ND	UG/L	5.0	EPA # 625
Bis(2-chloroisopropyl)ether	ND	UG/L	5.0	EPA # 625
Bis(2-ethylhexyl)phthalate	ND	UG/L	5.0	EPA # 625
Chlordane	ND	UG/L	5.0	EPA # 625
2-Chloronaphthalene	ND	UG/L	5.0	EPA # 625
4-Chlorophenyl phenyl Ether	ND	UG/L	5.0	EPA # 625
Chrysene	ND	UG/L	5.0	EPA # 625
4,4' DDD	ND	UG/L	5.0	EPA # 625
4,4' DDT	ND	UG/L	5.0	EPA # 625
Dibenzo(a,h)anthracene	ND	UG/L	5.0	EPA # 625
4,4' DDE	ND	UG/L	5.0	EPA # 625
Di-n-butylphthalate	ND	UG/L	5.0	EPA # 625
1,3 Dichlorobenzene	ND	UG/L	5.0	EPA # 625
1,2 Dichlorobenzene	ND	UG/L	5.0	EPA # 625
1,4 Dichlorobenzene	ND	UG/L	5.0	EPA # 625
Dieldrin	ND	UG/L	5.0	EPA # 625
3,3 Dichlorobenzene	ND	UG/L	5.0	EPA # 625
Diethylphthalate	ND	UG/L	5.0	EPA # 625



AMERICAN ENVIRONMENTAL
LABORATORIES, INC.

REPORT NUMBER: AA03002

PAGE 2 OF 2

PARAMETER	RESULT	UOM	MDL	METHOD
Dimethylphthalate	ND	UG/L	5.0	EPA # 625
2,4-Dinitrotoluene	ND	UG/L	5.0	EPA # 625
2,6-Dinitrotoluene	ND	UG/L	5.0	EPA # 625
Di-n-octylphthalate	ND	UG/L	5.0	EPA # 625
Endosulfan Sulfate	ND	UG/L	5.0	EPA # 625
Endrin	ND	UG/L	5.0	EPA # 625
Endrin Aldehyde	ND	UG/L	5.0	EPA # 625
Fluoranthene	ND	UG/L	5.0	EPA # 625
Fluorene	ND	UG/L	5.0	EPA # 625
Heptachlor	ND	UG/L	5.0	EPA # 625
Heptachlor Epoxide	ND	UG/L	5.0	EPA # 625
Hexachlorobenzene	ND	UG/L	5.0	EPA # 625
Hexachlorobutadiene	ND	UG/L	5.0	EPA # 625
Hexachloroethane	ND	UG/L	5.0	EPA # 625
Indeno (1,2,3, -c,d) pyrene	ND	UG/L	5.0	EPA # 625
Isophorone	ND	UG/L	5.0	EPA # 625
Naphthalene	ND	UG/L	5.0	EPA # 625
Nitrobenzene	ND	UG/L	5.0	EPA # 625
N-Nitrosodi-n-propylamine	ND	UG/L	5.0	EPA # 625
PCB 1016	ND	UG/L	100.0	EPA # 625
PCB 1232	ND	UG/L	100.0	EPA # 625
PCB 1242	ND	UG/L	100.0	EPA # 625
PCB 1254	ND	UG/L	100.0	EPA # 625
PCB 1221	ND	UG/L	100.0	EPA # 625
PCB 1248	ND	UG/L	100.0	EPA # 625
PCB 1260	ND	UG/L	100.0	EPA # 625
Phenanthrene	ND	UG/L	5.0	EPA # 625
Pyrene	ND	UG/L	5.0	EPA # 625
1,2,4-Trichlorobenzene	ND	UG/L	5.0	EPA # 625
4-Chloro-3-Methylphenol	ND	UG/L	5.0	EPA # 625
2-Chlorophenol	ND	UG/L	5.0	EPA # 625
2,4-Dichlorophenol	ND	UG/L	20.0	EPA # 625
2,4-Dimethylphenol	ND	UG/L	5.0	EPA # 625
2,4-Dinitrophenol	ND	UG/L	20.0	EPA # 625
2-Methyl-4,6-Dinitrophenol	ND	UG/L	20.0	EPA # 625
2-Nitrophenol	ND	UG/L	5.0	EPA # 625
4-Nitrophenol	ND	UG/L	5.0	EPA # 625
Pentachlorophenol	ND	UG/L	5.0	EPA # 625



**AMERICAN ENVIRONMENTAL
LABORATORIES, INC.**

REPORT NUMBER: AA03002

PAGE 3 OF 2

PARAMETER	RESULT	UOM	MDL	METHOD
Phenol	ND	UG/L	5.0	EPA # 625
Toxaphene	ND	UG/L	1000.0	EPA # 625
DILUTION FACTOR	NONE	TIMES		

ANALYZED BY: (S)

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- Exceeds EPA Guidelines
IDL - Minimum Detection Level
UOM - Unit Of Measure

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TNTC - Too Numerous To Count
ND - Not Detected



AMERICAN ENVIRONMENTAL
LABORATORIES, INC.

REPORT NUMBER: AA03003

PAGE 1 OF 1

- LAB ID #: MA076 -

TO: Roy Brothers, Inc.
764 Boston Rd.
Pinehurst, MA 01866
ATTN: Arthur Roy

DATE RECEIVED : 09/11/92
DATE ANALYZED : 09/17/92
DATE COLLECTED : 09/11/92
COLLECTED BY : AEL - EL
MATRIX : Wastewater

PO/ID NUMBER : PER LEO AA03002

SAMPLE DESCRIPTION: Well #4

- ANALYTICAL RESULTS -

PARAMETER	RESULT	UOM	MDL	METHOD
ARSENIC	2.3	MG/L	0.006	EPA # 200.7
ANTIMONY	0.57	MG/L	0.002	EPA # 200.7
BERYLLIUM	0.01	MG/L	0.003	EPA # 200.7
CADMIUM	0.06	MG/L	0.006	EPA # 200.7
TOTAL CHROMIUM	0.91	MG/L	0.006	EPA # 200.7
TOTAL COPPER	0.45	MG/L	0.006	EPA # 200.7
LEAD	0.78	MG/L	0.001	EPA # 200.7
MERCURY	0.004	MG/L	0.0002	EPA # 245.1
NICKEL	0.53	MG/L	0.006	EPA # 200.7
SELENIUM	0.57	MG/L	0.006	EPA # 200.7
SILVER	ND	MG/L	0.003	EPA # 200.7
THALLIUM	0.47	MG/L	0.005	EPA # 200.7
ZINC	1.1	MG/L	0.004	EPA # 200.7
ACID EXTRACTION	COMPLETED			EPA #3005-50

ANALYZED BY: (R)

All multi-component analyses are reported utilizing the Exception Method. Only those compounds with levels above our laboratories level of detection are reported. Please refer to Appendix A for custody and quality control data. These results apply only to the actual sample tested; the integrity of the results is dependent upon the quality of the sampling. American Environmental Laboratories shall be held harmless for any liability arising from the interpretation of such results.

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* - Exceeds EPA Guidelines
MDL - Minimum Detection Level
UOM - Unit Of Measure

Please Recycle ♻

TNTC - Too Numerous To Count
ND - Not Detected



AMERICAN ENVIRONMENTAL
LABORATORIES, INC.

REPORT NUMBER: AA03003

PAGE 1 OF 2

- LAB ID #: MA076 -

TO: Roy Brothers, Inc.
764 Boston Rd.
Pinehurst, MA 01866
ATTN: Arthur Roy

DATE RECEIVED : 09/11/92

DATE ANALYZED : 09/15/92

DATE COLLECTED : 09/11/92

COLLECTED BY : AEL - EL

PO/ID NUMBER : PER LEO AA03002

MATRIX : Wastewater

SAMPLE DESCRIPTION: Well #4

- ANALYTICAL RESULTS -

PARAMETER	RESULT	UOM	MDL	METHOD
Benzene	ND	UG/L	5.00	EPA # 624
Bromodichloromethane (THM)	ND	UG/L	5.00	EPA # 624
Bromoform (THM)	ND	UG/L	5.00	EPA # 624
Bromomethane	ND	UG/L	5.00	EPA # 624
Carbon Tetrachloride	ND	UG/L	5.00	EPA # 624
Chlorobenzene	ND	UG/L	5.00	EPA # 624
Chloroethane	ND	UG/L	5.00	EPA # 624
2-Chloroethylvinyl ether	ND	UG/L	10.00	EPA # 624
Chloroform (THM)	ND	UG/L	5.00	EPA # 624
Chloromethane	ND	UG/L	5.00	EPA # 624
Dibromochloromethane (THM)	ND	UG/L	5.00	EPA # 624
1,2-Dichlorobenzene	ND	UG/L	5.00	EPA # 624
1,3-Dichlorobenzene	ND	UG/L	5.00	EPA # 624
1,4-Dichlorobenzene	ND	UG/L	5.00	EPA # 624
1,1-Dichloroethane	ND	UG/L	5.00	EPA # 624
1,2-Dichloroethane	ND	UG/L	5.00	EPA # 624
1,1-Dichloroethene	ND	UG/L	5.00	EPA # 624
Trans-1,2-Dichloroethene	ND	UG/L	5.00	EPA # 624
1,2-Dichloropropane	ND	UG/L	5.00	EPA # 624
Cis-1,3-Dichloropropene	ND	UG/L	5.00	EPA # 624
Trans-1,3-Dichloropropene	ND	UG/L	5.00	EPA # 624
Ethyl Benzene	ND	UG/L	5.00	EPA # 624
Methylene Chloride	ND	UG/L	10.00	EPA # 624
1,1,2,2 Tetrachloroethane	ND	UG/L	5.00	EPA # 624
Tetrachloroethene	ND	UG/L	5.00	EPA # 624
Toluene	ND	UG/L	5.00	EPA # 624
1,1,1 Trichloroethane	ND	UG/L	5.00	EPA # 624
1,1,2 Trichloroethane	ND	UG/L	5.00	EPA # 624
Trichloroethene	ND	UG/L	5.00	EPA # 624
Trichlorofluoromethane	ND	UG/L	5.00	EPA # 624
Vinyl Chloride	ND	UG/L	5.00	EPA # 624
Total Xylenes	ND	UG/L	5.00	EPA # 624

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LABORATORIES, INC.

REPORT NUMBER: AA03003

PAGE 2 OF 2

PARAMETER	RESULT	UOM	MDL	METHOD
DILUTION FACTOR	NONE	TIMES		

ANALYZED BY: (*jl*)

All multi-component analyses are reported utilizing the Exception Method. Only those compounds with levels above our laboratories level of detection are reported. Please refer to Appendix A for custody and quality control data. These results apply only to the actual sample tested; the integrity of the results is dependent upon the quality of the sampling. American Environmental Laboratories shall be held harmless for any liability arising from the interpretation of such results.

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- Exceeds EPA Guidelines
IDL - Minimum Detection Level
UOM - Unit Of Measure

Please Recycle ♻️

TNTC - Too Numerous To Count
ND - Not Detected



AMERICAN ENVIRONMENTAL
LABORATORIES, INC.

REPORT NUMBER: AA03003

PAGE 1 OF 2

- LAB ID #: MA076 -

TO: Roy Brothers, Inc.
764 Boston Rd.
Pinehurst, MA 01866
ATTN: Arthur Roy

PO/ID NUMBER : PER LEO AA03002

SAMPLE DESCRIPTION: Well #4

DATE RECEIVED : 09/11/92

DATE ANALYZED : 09/17/92

DATE COLLECTED : 09/11/92

COLLECTED BY : AEL - EL

MATRIX : Wastewater

- ANALYTICAL RESULTS -

PARAMETER	RESULT	UOM	MDL	METHOD
Acenaphthene	ND	UG/L	5.0	EPA # 625
Acenaphthylene	ND	UG/L	5.0	EPA # 625
Aldrin	ND	UG/L	5.0	EPA # 625
Anthracene	ND	UG/L	5.0	EPA # 625
b-BHC	ND	UG/L	5.0	EPA # 625
γ-BHC (Lindane)	ND	UG/L	5.0	EPA # 625
4-Bromophenyl phenyl ether	ND	UG/L	5.0	EPA # 625
Benzo(a)anthracene	ND	UG/L	5.0	EPA # 625
Benzo(b)fluoranthene	ND	UG/L	5.0	EPA # 625
Benzo(k)fluoranthene	ND	UG/L	5.0	EPA # 625
Benzo(a)pyrene	ND	UG/L	5.0	EPA # 625
Benzo(g,h,i)perylene	ND	UG/L	5.0	EPA # 625
Benzyl butyl phthalate	ND	UG/L	5.0	EPA # 625
Bis(2-chloroethyl)ether	ND	UG/L	5.0	EPA # 625
Bis(2-chloroethoxy)methane	ND	UG/L	5.0	EPA # 625
Bis(2-chloroisopropyl)ether	ND	UG/L	5.0	EPA # 625
Bis(2-ethylhexyl)phthalate	ND	UG/L	5.0	EPA # 625
Chlordane	ND	UG/L	5.0	EPA # 625
2-Chloronaphthalene	ND	UG/L	5.0	EPA # 625
4-Chlorophenyl phenyl Ether	ND	UG/L	5.0	EPA # 625
Chrysene	ND	UG/L	5.0	EPA # 625
4,4' DDD	ND	UG/L	5.0	EPA # 625
4,4' DDE	ND	UG/L	5.0	EPA # 625
4,4' DDT	ND	UG/L	5.0	EPA # 625
Dibenzo(a,h)anthracene	ND	UG/L	5.0	EPA # 625
Di-n-butylphthalate	ND	UG/L	5.0	EPA # 625
1,3 Dichlorobenzene	ND	UG/L	5.0	EPA # 625
1,2 Dichlorobenzene	ND	UG/L	5.0	EPA # 625
1,4 Dichlorobenzene	ND	UG/L	5.0	EPA # 625
3,3 Dichlorobenzene	ND	UG/L	5.0	EPA # 625
Dieldrin	ND	UG/L	5.0	EPA # 625
Diethylphthalate	ND	UG/L	5.0	EPA # 625

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PARAMETER	RESULT	UOM	MDL	METHOD
Dimethylphthalate	ND	UG/L	5.0	EPA # 625
2,4-Dinitrotoluene	ND	UG/L	5.0	EPA # 625
2,6-Dinitrotoluene	ND	UG/L	5.0	EPA # 625
Di-n-octylphthalate	ND	UG/L	5.0	EPA # 625
Endosulfan Sulfate	ND	UG/L	5.0	EPA # 625
Endrin	ND	UG/L	5.0	EPA # 625
Endrin Aldehyde	ND	UG/L	5.0	EPA # 625
Fluoranthene	ND	UG/L	5.0	EPA # 625
Fluorene	ND	UG/L	5.0	EPA # 625
Heptachlor	ND	UG/L	5.0	EPA # 625
Heptachlor Epoxide	ND	UG/L	5.0	EPA # 625
Hexachlorobenzene	ND	UG/L	5.0	EPA # 625
Hexachlorobutadiene	ND	UG/L	5.0	EPA # 625
Hexachloroethane	ND	UG/L	5.0	EPA # 625
Indeno(1,2,3,-c,d)pyrene	ND	UG/L	5.0	EPA # 625
Isophorone	ND	UG/L	5.0	EPA # 625
Naphthalene	ND	UG/L	5.0	EPA # 625
Nitrobenzene	ND	UG/L	5.0	EPA # 625
N-Nitrosodi-n-propylamine	ND	UG/L	5.0	EPA # 625
PCB 1016	ND	UG/L	100.0	EPA # 625
PCB 1221	ND	UG/L	100.0	EPA # 625
PCB 1232	ND	UG/L	100.0	EPA # 625
PCB 1242	ND	UG/L	100.0	EPA # 625
PCB 1248	ND	UG/L	100.0	EPA # 625
PCB 1254	ND	UG/L	100.0	EPA # 625
PCB 1260	ND	UG/L	100.0	EPA # 625
Phenanthrene	ND	UG/L	5.0	EPA # 625
Pyrene	ND	UG/L	5.0	EPA # 625
1,2,4-Trichlorobenzene	ND	UG/L	5.0	EPA # 625
4-Chloro-3-Methylphenol	ND	UG/L	5.0	EPA # 625
2-Chlorophenol	ND	UG/L	5.0	EPA # 625
2,4-Dichlorophenol	ND	UG/L	20.0	EPA # 625
2,4-Dimethylphenol	ND	UG/L	5.0	EPA # 625
2,4-Dinitrophenol	ND	UG/L	20.0	EPA # 625
2-Methyl-4,6-Dinitrophenol	ND	UG/L	20.0	EPA # 625
2-Nitrophenol	ND	UG/L	5.0	EPA # 625
4-Nitrophenol	ND	UG/L	5.0	EPA # 625
Pentachlorophenol	ND	UG/L	5.0	EPA # 625



AMERICAN ENVIRONMENTAL
LABORATORIES, INC.

REPORT NUMBER: AA03003

PAGE 3 OF 2

PARAMETER	RESULT	UOM	MDL	METHOD
Phenol	ND	UG/L	5.0	EPA # 625
Toxaphene	ND	UG/L	1000.0	EPA # 625
DILUTION FACTOR	NONE	TIMES		

ANALYZED BY: (JLS)

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* - Exceeds EPA Guidelines
MDL - Minimum Detection Level
UOM - Unit Of Measure

Please Recycle ♻️

TNTC - Too Numerous To Count
ND - Not Detected

ATTACHMENT G

ROY BROS HAULERS

**GROUNDWATER SAMPLE ANALYTICAL RESULTS
AMERICAN ENVIRONMENTAL LABORATORIES, INC.**

Samples collected 21 June 1993



AMERICAN ENVIRONMENTAL
LABORATORIES, INC.

REPORT NUMBER: AA21482

Page 1 of 1

- LAB ID #: MA076 -

TO: Roy Brothers, Inc.
764 Boston Rd.
Pinehurst, MA 01866
ATTN: Arthur Roy

DATE RECEIVED : 06/22/93
DATE COLLECTED : 06/21/93
COLLECTED BY : AEL - EL
MATRIX : Grndwater

PO/ID NUMBER : AA21482

SAMPLE DESCRIPTION: MW-1

- ANALYTICAL RESULTS -

PARAMETER	RESULT	UOM	TEST DATE	MDL	METHOD
DISSOLVED	COMPLETED				
ARSENIC	ND	MG/L	06/23/93	0.006	EPA # 200.7
ANTIMONY	ND	MG/L	06/23/93	0.002	EPA # 204.2
BERYLLIUM	ND	MG/L	06/23/93	0.001	EPA # 200.7
CADMIUM	ND	MG/L	06/23/93	0.003	EPA # 200.7
CHROMIUM	ND	MG/L	06/23/93	0.006	EPA # 200.7
COPPER	ND	MG/L	06/23/93	0.006	EPA # 200.7
LEAD	ND	MG/L	06/23/93	0.0005	EPA # 239.2
MERCURY	ND	MG/L	06/23/93	0.0002	EPA # 245.1
NICKEL	ND	MG/L	06/23/93	0.006	EPA # 200.7
SELENIUM	ND	MG/L	06/23/93	0.006	EPA # 200.7
SILVER	ND	MG/L	06/23/93	0.003	EPA # 200.7
THALLIUM	ND	MG/L	06/23/93	0.001	EPA # 279.2
ZINC	ND	MG/L	06/23/93	0.003	EPA # 200.7

ANALYZED BY: 

These results apply only to the actual sample as tested. The integrity of results is dependent upon the quality of the sampling technique and subsequent handling. Actual detection limits are the above reported MDL's multiplied by dilution factors, if any. American Environmental Laboratories, Inc. shall not be held liable for any interpretation of analytical results.

UOM - Unit of Measure
* - Exceeds EPA Guidelines
MDL - Method Detection Limit

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ND - Not Detected
TNTC - Too Numerous To Count

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AMERICAN ENVIRONMENTAL
LABORATORIES, INC.

REPORT NUMBER: AA21482

Page 1 of 2

-LAB ID #: MA076-

TO: Roy Brothers, Inc.
764 Boston Rd.
Pinehurst, MA 01866
ATTN: Arthur Roy

DATE RECEIVED : 06/22/93
DATE COLLECTED : 06/21/93
COLLECTED BY : AEL - EL
MATRIX : Grndwater

PO/ID NUMBER : AA21482

SAMPLE DESCRIPTION: MW-1

- ANALYTICAL RESULTS -

PARAMETER	RESULT	UOM	TEST DATE	MDL	METHOD
Chloromethane	ND	UG/L	06/24/93	5.00	EPA # 624
Vinyl Chloride	ND	UG/L	06/24/93	5.00	EPA # 624
Bromomethane	ND	UG/L	06/24/93	5.00	EPA # 624
Chloroethane	ND	UG/L	06/24/93	5.00	EPA # 624
Trichlorofluoromethane	ND	UG/L	06/24/93	5.00	EPA # 624
1,1-Dichloroethene	ND	UG/L	06/24/93	5.00	EPA # 624
Methylene Chloride	ND	UG/L	06/24/93	10.0	EPA # 624
Trans-1,2-Dichloroethene	ND	UG/L	06/24/93	5.00	EPA # 624
1,1-Dichloroethane	ND	UG/L	06/24/93	5.00	EPA # 624
Chloroform (THM)	ND	UG/L	06/24/93	5.00	EPA # 624
1,1,1-Trichloroethane	ND	UG/L	06/24/93	5.00	EPA # 624
Carbon Tetrachloride	ND	UG/L	06/24/93	5.00	EPA # 624
Benzene	ND	UG/L	06/24/93	5.00	EPA # 624
1,2-Dichloroethane	ND	UG/L	06/24/93	5.00	EPA # 624
Trichloroethene	ND	UG/L	06/24/93	5.00	EPA # 624
1,2-Dichloropropane	ND	UG/L	06/24/93	5.00	EPA # 624
Bromodichloromethane (THM)	ND	UG/L	06/24/93	5.00	EPA # 624
Cis-1,3-Dichloropropene	ND	UG/L	06/24/93	5.00	EPA # 624
Toluene	ND	UG/L	06/24/93	5.00	EPA # 624
2-Chloroethylvinyl Ether	ND	UG/L	06/24/93	10.0	EPA # 624
Trans-1,3-Dichloropropene	ND	UG/L	06/24/93	5.00	EPA # 624
1,1,2-Trichloroethane	ND	UG/L	06/24/93	5.00	EPA # 624
Tetrachloroethene	ND	UG/L	06/24/93	5.00	EPA # 624
Dibromochloromethane (THM)	ND	UG/L	06/24/93	5.00	EPA # 624
Chlorobenzene	ND	UG/L	06/24/93	5.00	EPA # 624
Ethylbenzene	ND	UG/L	06/24/93	5.00	EPA # 624
Total Xylenes	ND	UG/L	06/24/93	5.00	EPA # 624
Bromoform (THM)	ND	UG/L	06/24/93	5.00	EPA # 624
1,1,2,2-Tetrachloroethane	ND	UG/L	06/24/93	5.00	EPA # 624
1,3-Dichlorobenzene	ND	UG/L	06/24/93	5.00	EPA # 624

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AMERICAN ENVIRONMENTAL
LABORATORIES, INC.

REPORT NUMBER: AA21482

Page 2 of 2

PARAMETER	RESULT	UOM	TEST DATE	MDL	METHOD
1,4-Dichlorobenzene	ND	UG/L	06/24/93	5.00	EPA # 624
1,2-Dichlorobenzene	ND	UG/L	06/24/93	5.00	EPA # 624
Dilution Factor	NONE	TIMES			

ANALYZED BY: (signature)

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UOM - Unit of Measure
• - Exceeds EPA Guidelines
MDL - Method Detection Limit

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ND - Not Detected
TNTC - Too Numerous To Count

Please Recycle ♻️



AMERICAN ENVIRONMENTAL
LABORATORIES, INC.

REPORT NUMBER: AA21482

Page 1 of 3

- LAB ID #: MA076 -

TO: Roy Brothers, Inc.
764 Boston Rd.
Pinehurst, MA 01866
ATTN: Arthur Roy

DATE RECEIVED : 06/22/93
DATE COLLECTED : 06/21/93
COLLECTED BY : AEL - EL
MATRIX : Grndwater

PO/ID NUMBER : AA21482

SAMPLE DESCRIPTION: MW-1

- ANALYTICAL RESULTS -

PARAMETER	RESULT	UOM	TEST DATE	MDL	METHOD
N-Nitrosomethylethylamine	ND	UG/L	06/28/93	5.0	EPA # 625
Phenol	ND	UG/L	06/28/93	5.0	EPA # 625
Bis(2-Chloroethyl)ether	ND	UG/L	06/28/93	5.0	EPA # 625
2-Chlorophenol	ND	UG/L	06/28/93	5.0	EPA # 625
1,3-Dichlorobenzene	ND	UG/L	06/28/93	5.0	EPA # 625
1,4-Dichlorobenzene	ND	UG/L	06/28/93	5.0	EPA # 625
1,2-Dichlorobenzene	ND	UG/L	06/28/93	5.0	EPA # 625
Bis(2-Chloroisopropyl)ether	ND	UG/L	06/28/93	5.0	EPA # 625
N-Nitrosodi-n-propylamine	ND	UG/L	06/28/93	5.0	EPA # 625
Hexachloroethane	ND	UG/L	06/28/93	5.0	EPA # 625
Nitrobenzene	ND	UG/L	06/28/93	5.0	EPA # 625
Isophorone	ND	UG/L	06/28/93	5.0	EPA # 625
2-Nitrophenol	ND	UG/L	06/28/93	5.0	EPA # 625
2,4-Dimethylphenol	ND	UG/L	06/28/93	5.0	EPA # 625
Bis(2-Chloroethoxy)methane	ND	UG/L	06/28/93	5.0	EPA # 625
2,4-Dichlorophenol	ND	UG/L	06/28/93	20.0	EPA # 625
1,2,4-Trichlorobenzene	ND	UG/L	06/28/93	5.0	EPA # 625
Naphthalene	ND	UG/L	06/28/93	5.0	EPA # 625
Hexachlorobutadiene	ND	UG/L	06/28/93	5.0	EPA # 625
4-Chloro-3-Methylphenol	ND	UG/L	06/28/93	5.0	EPA # 625
Hexachlorocyclopentadiene	ND	UG/L	06/28/93	5.0	EPA # 625
2,4,6-Trichlorophenol	ND	UG/L	06/28/93	5.0	EPA # 625
2-Chloronaphthalene	ND	UG/L	06/28/93	5.0	EPA # 625
Dimethylphthalate	ND	UG/L	06/28/93	5.0	EPA # 625
Acenaphthylene	ND	UG/L	06/28/93	5.0	EPA # 625
2,6-Dinitrotoluene	ND	UG/L	06/28/93	5.0	EPA # 625
Acenaphthene	ND	UG/L	06/28/93	5.0	EPA # 625
2,4-Dinitrophenol	ND	UG/L	06/28/93	20.0	EPA # 625
4-Nitrophenol	ND	UG/L	06/28/93	5.0	EPA # 625
2,4-Dinitrotoluene	ND	UG/L	06/28/93	5.0	EPA # 625

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AMERICAN ENVIRONMENTAL
LABORATORIES, INC.

REPORT NUMBER: AA21482

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PARAMETER	RESULT	UOM	TEST DATE	MDL	METHOD
Diethylphthalate	ND	UG/L	06/28/93	5.0	EPA # 625
Fluorene	ND	UG/L	06/28/93	5.0	EPA # 625
4-Chlorophenyl-phenylether	ND	UG/L	06/28/93	5.0	EPA # 625
2-Methyl-4,6-Dinitrophenol	ND	UG/L	06/28/93	20.0	EPA # 625
N-Nitrosodiphenylamine	ND	UG/L	06/28/93	5.0	EPA # 625
4-Bromophenyl-phenylether	ND	UG/L	06/28/93	5.0	EPA # 625
a-BHC	ND	UG/L	06/28/93	5.0	EPA # 625
Hexachlorobenzene	ND	UG/L	06/28/93	5.0	EPA # 625
b-BHC	ND	UG/L	06/28/93	5.0	EPA # 625
Pentachlorophenol	ND	UG/L	06/28/93	5.0	EPA # 625
γ-BHC (Lindane)	ND	UG/L	06/28/93	5.0	EPA # 625
Phenanthrene	ND	UG/L	06/28/93	5.0	EPA # 625
Anthracene	ND	UG/L	06/28/93	5.0	EPA # 625
d-BHC	ND	UG/L	06/28/93	5.0	EPA # 625
Heptachlor	ND	UG/L	06/28/93	5.0	EPA # 625
Di-n-butylphthalate	ND	UG/L	06/28/93	5.0	EPA # 625
Aldrin	ND	UG/L	06/28/93	5.0	EPA # 625
Heptachlor Epoxide	ND	UG/L	06/28/93	5.0	EPA # 625
Fluoranthene	ND	UG/L	06/28/93	5.0	EPA # 625
Benzidine	ND	UG/L	06/28/93	5.0	EPA # 625
Pyrene	ND	UG/L	06/28/93	5.0	EPA # 625
Endosulfan I	ND	UG/L	06/28/93	5.0	EPA # 625
4,4-DDE	ND	UG/L	06/28/93	5.0	EPA # 625
Endrin	ND	UG/L	06/28/93	5.0	EPA # 625
Dieldrin	ND	UG/L	06/28/93	5.0	EPA # 625
Endosulfan II	ND	UG/L	06/28/93	5.0	EPA # 625
4,4-DDD	ND	UG/L	06/28/93	5.0	EPA # 625
Butylbenzylphthalate	ND	UG/L	06/28/93	5.0	EPA # 625
4,4-DDT	ND	UG/L	06/28/93	5.0	EPA # 625
Endosulfan Sulfate	ND	UG/L	06/28/93	5.0	EPA # 625
Endrin Aldehyde	ND	UG/L	06/28/93	5.0	EPA # 625
3,3-Dichlorobenzidine	ND	UG/L	06/28/93	5.0	EPA # 625
Benzo(a)anthracene	ND	UG/L	06/28/93	5.0	EPA # 625
Chrysene	ND	UG/L	06/28/93	5.0	EPA # 625
Bis(2-Ethylhexyl)phthalate	ND	UG/L	06/28/93	5.0	EPA # 625
Di-n-octylphthalate	ND	UG/L	06/28/93	5.0	EPA # 625
Benzo(b)fluoranthene	ND	UG/L	06/28/93	5.0	EPA # 625
Benzo(k)fluoranthene	ND	UG/L	06/28/93	5.0	EPA # 625
Benzo(a)pyrene	ND	UG/L	06/28/93	5.0	EPA # 625
Indeno(1,2,3-cd)pyrene	ND	UG/L	06/28/93	5.0	EPA # 625
Dibenz(a,h)anthracene	ND	UG/L	06/28/93	5.0	EPA # 625
Benzo(g,h,i)perylene	ND	UG/L	06/28/93	5.0	EPA # 625
Chlordane	ND	UG/L	06/28/93	5.0	EPA # 625
Toxaphene	ND	UG/L	06/28/93	1000.0	EPA # 625



AMERICAN ENVIRONMENTAL
LABORATORIES, INC.

REPORT NUMBER: AA21482

Page 3 of 3

PARAMETER	RESULT	UOM	TEST DATE	MDL	METHOD
PCB 1016	ND	UG/L	06/28/93	100.0	EPA # 625
PCB-1221	ND	UG/L	06/28/93	100.0	EPA # 625
PCB-1232	ND	UG/L	06/28/93	100.0	EPA # 625
PCB-1242	ND	UG/L	06/28/93	100.0	EPA # 625
PCB-1248	ND	UG/L	06/28/93	100.0	EPA # 625
PCB-1254	ND	UG/L	06/28/93	100.0	EPA # 625
PCB-1260	ND	UG/L	06/28/93	100.0	EPA # 625
DILUTION FACTOR: NONE					

ANALYZED BY: *(Signature)*

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UOM - Unit of Measure
* - Exceeds EPA Guidelines
MDL - Method Detection Limit

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(508) 534-1444 • 1 (800) 522-0094 • Fax: (508) 537-6252

ND - Not Detected
TNTC - Too Numerous To Count



AMERICAN ENVIRONMENTAL
LABORATORIES, INC.

REPORT NUMBER: AA21483

Page 1 of 1

- LAB ID #: MA076 -

TO: Roy Brothers, Inc.
764 Boston Rd.
Pinehurst, MA 01866
ATTN: Arthur Roy

DATE RECEIVED : 06/22/93
DATE COLLECTED : 06/21/93
COLLECTED BY : AEL - EL
MATRIX : Grndwater

PO/ID NUMBER : AA21482

SAMPLE DESCRIPTION: MW-2

- ANALYTICAL RESULTS -

PARAMETER	RESULT	UOM	TEST DATE	MDL	METHOD
DISSOLVED	COMPLETED				
ARSENIC	ND	MG/L	06/23/93	0.006	EPA # 200.7
ANTIMONY	ND	MG/L	06/23/93	0.002	EPA # 204.2
BERYLLIUM	ND	MG/L	06/23/93	0.001	EPA # 200.7
CADMIUM	ND	MG/L	06/23/93	0.003	EPA # 200.7
CHROMIUM	ND	MG/L	06/23/93	0.006	EPA # 200.7
COPPER	ND	MG/L	06/23/93	0.006	EPA # 200.7
LEAD	ND	MG/L	06/23/93	0.0005	EPA # 239.2
MERCURY	ND	MG/L	06/23/93	0.0002	EPA # 245.1
NICKEL	ND	MG/L	06/23/93	0.006	EPA # 200.7
SELENIUM	ND	MG/L	06/23/93	0.006	EPA # 200.7
SILVER	ND	MG/L	06/23/93	0.003	EPA # 200.7
THALLIUM	ND	MG/L	06/23/93	0.001	EPA # 279.2
ZINC	ND	MG/L	06/23/93	0.003	EPA # 200.7

ANALYZED BY: (SR)

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UOM - Unit of Measure
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MDL - Method Detection Limit

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ND - Not Detected
TNTC - Too Numerous To Count

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AMERICAN ENVIRONMENTAL
LABORATORIES, INC.

REPORT NUMBER: AA21483

Page 1 of 2

- LAB ID #: MA076 -

TO: Roy Brothers, Inc.
764 Boston Rd.
Pinehurst, MA 01866
ATTN: Arthur Roy

DATE RECEIVED : 06/22/93
DATE COLLECTED 06/21/93
COLLECTED BY : AEL - EL
MATRIX : Grndwater

PO/ID NUMBER : AA21482

SAMPLE DESCRIPTION: MW-2

- ANALYTICAL RESULTS -

PARAMETER	RESULT	UOM	TEST DATE	MDL	METHOD
Chloromethane	ND	UG/L	06/24/93	5.00	EPA # 624
Vinyl Chloride	ND	UG/L	06/24/93	5.00	EPA # 624
Bromomethane	ND	UG/L	06/24/93	5.00	EPA # 624
Chloroethane	ND	UG/L	06/24/93	5.00	EPA # 624
Trichlorofluoromethane	ND	UG/L	06/24/93	5.00	EPA # 624
1,1-Dichloroethene	ND	UG/L	06/24/93	5.00	EPA # 624
Methylene Chloride	ND	UG/L	06/24/93	10.0	EPA # 624
Trans-1,2-Dichloroethene	ND	UG/L	06/24/93	5.00	EPA # 624
1,1-Dichloroethane	ND	UG/L	06/24/93	5.00	EPA # 624
Chloroform (THM)	ND	UG/L	06/24/93	5.00	EPA # 624
1,1,1-Trichloroethane	ND	UG/L	06/24/93	5.00	EPA # 624
Carbon Tetrachloride	ND	UG/L	06/24/93	5.00	EPA # 624
Benzene	11.4	UG/L	06/24/93	5.00	EPA # 624
1,2-Dichloroethane	ND	UG/L	06/24/93	5.00	EPA # 624
Trichloroethene	ND	UG/L	06/24/93	5.00	EPA # 624
1,2-Dichloropropane	ND	UG/L	06/24/93	5.00	EPA # 624
Bromodichloromethane (THM)	ND	UG/L	06/24/93	5.00	EPA # 624
Cis-1,3-Dichloropropene	ND	UG/L	06/24/93	5.00	EPA # 624
Toluene	ND	UG/L	06/24/93	5.00	EPA # 624
2-Chloroethylvinyl Ether	ND	UG/L	06/24/93	10.0	EPA # 624
Trans-1,3-Dichloropropene	ND	UG/L	06/24/93	5.00	EPA # 624
1,1,2-Trichloroethane	ND	UG/L	06/24/93	5.00	EPA # 624
Tetrachloroethene	ND	UG/L	06/24/93	5.00	EPA # 624
Dibromochloromethane (THM)	ND	UG/L	06/24/93	5.00	EPA # 624
Chlorobenzene	ND	UG/L	06/24/93	5.00	EPA # 624
Ethylbenzene	ND	UG/L	06/24/93	5.00	EPA # 624
Total Xylenes	ND	UG/L	06/24/93	5.00	EPA # 624
Bromoform (THM)	ND	UG/L	06/24/93	5.00	EPA # 624
1,1,2,2-Tetrachloroethane	ND	UG/L	06/24/93	5.00	EPA # 624
1,3-Dichlorobenzene	ND	UG/L	06/24/93	5.00	EPA # 624

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AMERICAN ENVIRONMENTAL
LABORATORIES, INC.

REPORT NUMBER: AA21483

Page 2 of 2

PARAMETER	RESULT	UOM	TEST DATE	MDL	METHOD
1,4-Dichlorobenzene	ND	UG/L	06/24/93	5.00	EPA # 624
1,2-Dichlorobenzene	ND	UG/L	06/24/93	5.00	EPA # 624
Dilution Factor	NONE	TIMES			

ANALYZED BY: (JL)

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AMERICAN ENVIRONMENTAL
LABORATORIES, INC.

REPORT NUMBER: AA21483

Page 1 of 3

- LAB ID #: MA076 -

TO: Roy Brothers, Inc.
764 Boston Rd.
Pinehurst, MA 01866
ATTN: Arthur Roy

DATE RECEIVED : 06/22/93
DATE COLLECTED : 06/21/93
COLLECTED BY : AEL - EL
MATRIX : Grndwater

PO/ID NUMBER : AA21482

SAMPLE DESCRIPTION: MW-2

- ANALYTICAL RESULTS -

PARAMETER	RESULT	UOM	TEST DATE	MDL	METHOD
N-Nitrosomethylethylamine	ND	UG/L	06/28/93	5.0	EPA # 625
Phenol	ND	UG/L	06/28/93	5.0	EPA # 625
Bis(2-Chloroethyl)ether	ND	UG/L	06/28/93	5.0	EPA # 625
2-Chlorophenol	ND	UG/L	06/28/93	5.0	EPA # 625
1,3-Dichlorobenzene	ND	UG/L	06/28/93	5.0	EPA # 625
1,4-Dichlorobenzene	ND	UG/L	06/28/93	5.0	EPA # 625
1,2-Dichlorobenzene	ND	UG/L	06/28/93	5.0	EPA # 625
Bis(2-Chloroisopropyl)ether	ND	UG/L	06/28/93	5.0	EPA # 625
N-Nitrosodi-n-propylamine	ND	UG/L	06/28/93	5.0	EPA # 625
Hexachloroethane	ND	UG/L	06/28/93	5.0	EPA # 625
Nitrobenzene	ND	UG/L	06/28/93	5.0	EPA # 625
Isophorone	ND	UG/L	06/28/93	5.0	EPA # 625
2-Nitrophenol	ND	UG/L	06/28/93	5.0	EPA # 625
2,4-Dimethylphenol	ND	UG/L	06/28/93	5.0	EPA # 625
Bis(2-Chloroethoxy)methane	ND	UG/L	06/28/93	5.0	EPA # 625
2,4-Dichlorophenol	ND	UG/L	06/28/93	20.0	EPA # 625
1,2,4-Trichlorobenzene	ND	UG/L	06/28/93	5.0	EPA # 625
Naphthalene	ND	UG/L	06/28/93	5.0	EPA # 625
Hexachlorobutadiene	ND	UG/L	06/28/93	5.0	EPA # 625
4-Chloro-3-Methylphenol	ND	UG/L	06/28/93	5.0	EPA # 625
Hexachlorocyclopentadiene	ND	UG/L	06/28/93	5.0	EPA # 625
2,4,6-Trichlorophenol	ND	UG/L	06/28/93	5.0	EPA # 625
2-Chloronaphthalene	ND	UG/L	06/28/93	5.0	EPA # 625
Dimethylphthalate	ND	UG/L	06/28/93	5.0	EPA # 625
Acenaphthylene	ND	UG/L	06/28/93	5.0	EPA # 625
2,6-Dinitrotoluene	ND	UG/L	06/28/93	5.0	EPA # 625
Acenaphthene	ND	UG/L	06/28/93	5.0	EPA # 625
2,4-Dinitrophenol	ND	UG/L	06/28/93	20.0	EPA # 625
4-Nitrophenol	ND	UG/L	06/28/93	5.0	EPA # 625
2,4-Dinitrotoluene	ND	UG/L	06/28/93	5.0	EPA # 625

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AMERICAN ENVIRONMENTAL
LABORATORIES, INC.

REPORT NUMBER: AA21483

Page 2 of 3

PARAMETER	RESULT	UOM	TEST DATE	MDL	METHOD
Diethylphthalate	ND	UG/L	06/28/93	5.0	EPA # 625
Fluorene	ND	UG/L	06/28/93	5.0	EPA # 625
4-Chlorophenyl-phenylether	ND	UG/L	06/28/93	5.0	EPA # 625
2-Methyl-4,6-Dinitrophenol	ND	UG/L	06/28/93	20.0	EPA # 625
N-Nitrosodiphenylamine	ND	UG/L	06/28/93	5.0	EPA # 625
4-Bromophenyl-phenylether	ND	UG/L	06/28/93	5.0	EPA # 625
a-BHC	ND	UG/L	06/28/93	5.0	EPA # 625
Hexachlorobenzene	ND	UG/L	06/28/93	5.0	EPA # 625
b-BHC	ND	UG/L	06/28/93	5.0	EPA # 625
Pentachlorophenol	ND	UG/L	06/28/93	5.0	EPA # 625
γ-BHC (Lindane)	ND	UG/L	06/28/93	5.0	EPA # 625
Phenanthrene	ND	UG/L	06/28/93	5.0	EPA # 625
Anthracene	ND	UG/L	06/28/93	5.0	EPA # 625
d-BHC	ND	UG/L	06/28/93	5.0	EPA # 625
Heptachlor	ND	UG/L	06/28/93	5.0	EPA # 625
Di-n-butylphthalate	ND	UG/L	06/28/93	5.0	EPA # 625
Aldrin	ND	UG/L	06/28/93	5.0	EPA # 625
Heptachlor Epoxide	ND	UG/L	06/28/93	5.0	EPA # 625
Fluoranthene	5.80	UG/L	06/28/93	5.0	EPA # 625
Ben-zidine	ND	UG/L	06/28/93	5.0	EPA # 625
Pyrene	ND	UG/L	06/28/93	5.0	EPA # 625
Endosulfan I	ND	UG/L	06/28/93	5.0	EPA # 625
4,4-DDE	ND	UG/L	06/28/93	5.0	EPA # 625
Endrin	ND	UG/L	06/28/93	5.0	EPA # 625
Dieldrin	ND	UG/L	06/28/93	5.0	EPA # 625
Endosulfan II	ND	UG/L	06/28/93	5.0	EPA # 625
4,4-DDD	ND	UG/L	06/28/93	5.0	EPA # 625
Butylbenzylphthalate	ND	UG/L	06/28/93	5.0	EPA # 625
4,4-DDT	ND	UG/L	06/28/93	5.0	EPA # 625
Endosulfan Sulfate	ND	UG/L	06/28/93	5.0	EPA # 625
Endrin Aldehyde	ND	UG/L	06/28/93	5.0	EPA # 625
3,3-Dichlorobenzidine	ND	UG/L	06/28/93	5.0	EPA # 625
Benzo(a)anthracene	ND	UG/L	06/28/93	5.0	EPA # 625
Chrysene	ND	UG/L	06/28/93	5.0	EPA # 625
Bis(2-Ethylhexyl)phthalate	ND	UG/L	06/28/93	5.0	EPA # 625
Di-n-octylphthalate	ND	UG/L	06/28/93	5.0	EPA # 625
Benzo(b)fluoranthene	ND	UG/L	06/28/93	5.0	EPA # 625
Benzo(k)fluoranthene	ND	UG/L	06/28/93	5.0	EPA # 625
Benzo(a)pyrene	ND	UG/L	06/28/93	5.0	EPA # 625
Indeno(1,2,3-cd)pyrene	ND	UG/L	06/28/93	5.0	EPA # 625
Dibenz(a,h)anthracene	ND	UG/L	06/28/93	5.0	EPA # 625
Benzo(g,h,i)perylene	ND	UG/L	06/28/93	5.0	EPA # 625
Chlordane	ND	UG/L	06/28/93	5.0	EPA # 625
Toxaphene	ND	UG/L	06/28/93	1000.0	EPA # 625



AMERICAN ENVIRONMENTAL
LABORATORIES, INC.

REPORT NUMBER: AA21483

Page 3 of 3

PARAMETER	RESULT	UOM	TEST DATE	MDL	METHOD
PCB 1016	ND	UG/L	06/28/93	100.0	EPA # 625
PCB-1221	ND	UG/L	06/28/93	100.0	EPA # 625
PCB-1232	ND	UG/L	06/28/93	100.0	EPA # 625
PCB-1242	ND	UG/L	06/28/93	100.0	EPA # 625
PCB-1248	ND	UG/L	06/28/93	100.0	EPA # 625
PCB-1254	ND	UG/L	06/28/93	100.0	EPA # 625
PCB-1260	ND	UG/L	06/28/93	100.0	EPA # 625
DILUTION FACTOR: NONE					

ANALYZED BY: (12/5)

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AMERICAN ENVIRONMENTAL
LABORATORIES, INC.

REPORT NUMBER: AA21484

Page 1 of 1

- LAB ID #: MA076 -

TO: Roy Brothers, Inc.
764 Boston Rd.
Pinehurst, MA 01866
ATTN: Arthur Roy


DATE RECEIVED : 06/22/93
DATE COLLECTED : 06/21/93
COLLECTED BY : AEL - EL
MATRIX : Grndwater

PO/ID NUMBER : AA21482

SAMPLE DESCRIPTION: MW-3

- ANALYTICAL RESULTS -

PARAMETER	RESULT	UOM	TEST DATE	MDL	METHOD
DISSOLVED	COMPLETED				
ARSENIC	ND	MG/L	06/23/93	0.006	EPA # 200.7
ANTIMONY	ND	MG/L	06/23/93	0.002	EPA # 204.2
BERYLLIUM	ND	MG/L	06/23/93	0.001	EPA # 200.7
CADMIUM	ND	MG/L	06/23/93	0.003	EPA # 200.7
CHROMIUM	ND	MG/L	06/23/93	0.006	EPA # 200.7
COPPER	ND	MG/L	06/23/93	0.006	EPA # 200.7
LEAD	ND	MG/L	06/23/93	0.0005	EPA # 239.2
MERCURY	ND	MG/L	06/23/93	0.0002	EPA # 245.1
NICKEL	ND	MG/L	06/23/93	0.006	EPA # 200.7
SELENIUM	ND	MG/L	06/23/93	0.006	EPA # 200.7
SILVER	ND	MG/L	06/23/93	0.003	EPA # 200.7
THALLIUM	ND	MG/L	06/23/93	0.001	EPA # 279.2
ZINC	ND	MG/L	06/23/93	0.003	EPA # 200.7

ANALYZED BY: 

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MATRIX : Grndwater

PO/ID NUMBER : AA21482

SAMPLE DESCRIPTION: MW-3

- ANALYTICAL RESULTS -

PARAMETER	RESULT	UOM	TEST DATE	MDL	METHOD
Chloromethane	ND	UG/L	06/24/93	5.00	EPA # 624
Vinyl Chloride	ND	UG/L	06/24/93	5.00	EPA # 624
Bromomethane	ND	UG/L	06/24/93	5.00	EPA # 624
Chloroethane	ND	UG/L	06/24/93	5.00	EPA # 624
Trichlorofluoromethane	ND	UG/L	06/24/93	5.00	EPA # 624
1,1-Dichloroethene	ND	UG/L	06/24/93	5.00	EPA # 624
Methylene Chloride	ND	UG/L	06/24/93	10.0	EPA # 624
Trans-1,2-Dichloroethene	ND	UG/L	06/24/93	5.00	EPA # 624
1,1-Dichloroethane	ND	UG/L	06/24/93	5.00	EPA # 624
Chloroform (THM)	ND	UG/L	06/24/93	5.00	EPA # 624
1,1,1-Trichloroethane	ND	UG/L	06/24/93	5.00	EPA # 624
Carbon Tetrachloride	ND	UG/L	06/24/93	5.00	EPA # 624
Benzene	ND	UG/L	06/24/93	5.00	EPA # 624
1,2-Dichloroethane	ND	UG/L	06/24/93	5.00	EPA # 624
Trichloroethene	ND	UG/L	06/24/93	5.00	EPA # 624
1,2-Dichloropropane	ND	UG/L	06/24/93	5.00	EPA # 624
Bromodichloromethane (THM)	ND	UG/L	06/24/93	5.00	EPA # 624
Cis-1,3-Dichloropropene	ND	UG/L	06/24/93	5.00	EPA # 624
Toluene	ND	UG/L	06/24/93	5.00	EPA # 624
2-Chloroethylvinyl Ether	ND	UG/L	06/24/93	10.0	EPA # 624
Trans-1,3-Dichloropropene	ND	UG/L	06/24/93	5.00	EPA # 624
1,1,2-Trichloroethane	ND	UG/L	06/24/93	5.00	EPA # 624
Tetrachloroethene	ND	UG/L	06/24/93	5.00	EPA # 624
Dibromochloromethane (THM)	ND	UG/L	06/24/93	5.00	EPA # 624
Chlorobenzene	ND	UG/L	06/24/93	5.00	EPA # 624
Ethylbenzene	ND	UG/L	06/24/93	5.00	EPA # 624
Total Xylenes	ND	UG/L	06/24/93	5.00	EPA # 624
Bromoform (THM)	ND	UG/L	06/24/93	5.00	EPA # 624
1,1,2,2-Tetrachloroethane	ND	UG/L	06/24/93	5.00	EPA # 624
1,3-Dichlorobenzene	ND	UG/L	06/24/93	5.00	EPA # 624

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AMERICAN ENVIRONMENTAL
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REPORT NUMBER: AA21484

Page 2 of 2

PARAMETER	RESULT	UOM	TEST DATE	MDL	METHOD
1,4-Dichlorobenzene	ND	UG/L	06/24/93	5.00	EPA # 624
1,2-Dichlorobenzene	ND	UG/L	06/24/93	5.00	EPA # 624
Dilution Factor	NONE	TIMES			

ANALYZED BY: (J)

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MATRIX : Grndwater

PO/ID NUMBER : AA21482

SAMPLE DESCRIPTION: MW-3

- ANALYTICAL RESULTS -

PARAMETER	RESULT	UOM	TEST DATE	MDL	METHOD
N-Nitrosomethylethylamine	ND	UG/L	06/28/93	5.0	EPA # 625
Phenol	ND	UG/L	06/28/93	5.0	EPA # 625
Bis(2-Chloroethyl)ether	ND	UG/L	06/28/93	5.0	EPA # 625
2-Chlorophenol	ND	UG/L	06/28/93	5.0	EPA # 625
1,3-Dichlorobenzene	ND	UG/L	06/28/93	5.0	EPA # 625
1,4-Dichlorobenzene	ND	UG/L	06/28/93	5.0	EPA # 625
1,2-Dichlorobenzene	ND	UG/L	06/28/93	5.0	EPA # 625
Bis(2-Chloroisopropyl)ether	ND	UG/L	06/28/93	5.0	EPA # 625
N-Nitrosodi-n-propylamine	ND	UG/L	06/28/93	5.0	EPA # 625
Hexachloroethane	ND	UG/L	06/28/93	5.0	EPA # 625
Nitrobenzene	ND	UG/L	06/28/93	5.0	EPA # 625
Isophorone	ND	UG/L	06/28/93	5.0	EPA # 625
2-Nitrophenol	ND	UG/L	06/28/93	5.0	EPA # 625
2,4-Dimethylphenol	ND	UG/L	06/28/93	5.0	EPA # 625
Bis(2-Chloroethoxy)methane	ND	UG/L	06/28/93	5.0	EPA # 625
2,4-Dichlorophenol	ND	UG/L	06/28/93	20.0	EPA # 625
1,2,4-Trichlorobenzene	ND	UG/L	06/28/93	5.0	EPA # 625
Naphthalene	ND	UG/L	06/28/93	5.0	EPA # 625
Hexachlorobutadiene	ND	UG/L	06/28/93	5.0	EPA # 625
4-Chloro-3-Methylphenol	ND	UG/L	06/28/93	5.0	EPA # 625
Hexachlorocyclopentadiene	ND	UG/L	06/28/93	5.0	EPA # 625
2,4,6-Trichlorophenol	ND	UG/L	06/28/93	5.0	EPA # 625
2-Chloronaphthalene	ND	UG/L	06/28/93	5.0	EPA # 625
Dimethylphthalate	ND	UG/L	06/28/93	5.0	EPA # 625
Acenaphthylene	ND	UG/L	06/28/93	5.0	EPA # 625
2,6-Dinitrotoluene	ND	UG/L	06/28/93	5.0	EPA # 625
Acenaphthene	ND	UG/L	06/28/93	5.0	EPA # 625
2,4-Dinitrophenol	ND	UG/L	06/28/93	20.0	EPA # 625
4-Nitrophenol	ND	UG/L	06/28/93	5.0	EPA # 625
2,4-Dinitrotoluene	ND	UG/L	06/28/93	5.0	EPA # 625



AMERICAN ENVIRONMENTAL
LABORATORIES, INC.

REPORT NUMBER: AA21484

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PARAMETER	RESULT	UOM	TEST DATE	MDL	METHOD
Diethylphthalate	ND	UG/L	06/28/93	5.0	EPA # 625
Fluorene	ND	UG/L	06/28/93	5.0	EPA # 625
4-Chlorophenyl-phenylether	ND	UG/L	06/28/93	5.0	EPA # 625
2-Methyl-4,6-Dinitrophenol	ND	UG/L	06/28/93	20.0	EPA # 625
N-Nitrosodiphenylamine	ND	UG/L	06/28/93	5.0	EPA # 625
4-Bromophenyl-phenylether	ND	UG/L	06/28/93	5.0	EPA # 625
a-BHC	ND	UG/L	06/28/93	5.0	EPA # 625
Hexachlorobenzene	ND	UG/L	06/28/93	5.0	EPA # 625
b-BHC	ND	UG/L	06/28/93	5.0	EPA # 625
Pentachlorophenol	ND	UG/L	06/28/93	5.0	EPA # 625
y-BHC (Lindane)	ND	UG/L	06/28/93	5.0	EPA # 625
Phenanthrene	ND	UG/L	06/28/93	5.0	EPA # 625
Anthracene	ND	UG/L	06/28/93	5.0	EPA # 625
d-BHC	ND	UG/L	06/28/93	5.0	EPA # 625
Heptachlor	ND	UG/L	06/28/93	5.0	EPA # 625
Di-n-butylphthalate	10.9	UG/L	06/28/93	5.0	EPA # 625
Aldrin	ND	UG/L	06/28/93	5.0	EPA # 625
Heptachlor Epoxide	ND	UG/L	06/28/93	5.0	EPA # 625
Fluoranthene	ND	UG/L	06/28/93	5.0	EPA # 625
Benzidine	ND	UG/L	06/28/93	5.0	EPA # 625
Pyrene	ND	UG/L	06/28/93	5.0	EPA # 625
Endosulfan I	ND	UG/L	06/28/93	5.0	EPA # 625
4,4-DDE	ND	UG/L	06/28/93	5.0	EPA # 625
Endrin	ND	UG/L	06/28/93	5.0	EPA # 625
Dieldrin	ND	UG/L	06/28/93	5.0	EPA # 625
Endosulfan II	ND	UG/L	06/28/93	5.0	EPA # 625
4,4-DDD	ND	UG/L	06/28/93	5.0	EPA # 625
Butylbenzylphthalate	ND	UG/L	06/28/93	5.0	EPA # 625
4,4-DDT	ND	UG/L	06/28/93	5.0	EPA # 625
Endosulfan Sulfate	ND	UG/L	06/28/93	5.0	EPA # 625
Endrin Aldehyde	ND	UG/L	06/28/93	5.0	EPA # 625
3,3-Dichlorobenzidine	ND	UG/L	06/28/93	5.0	EPA # 625
Benzo(a)anthracene	ND	UG/L	06/28/93	5.0	EPA # 625
Chrysene	ND	UG/L	06/28/93	5.0	EPA # 625
Bis(2-Ethylhexyl)phthalate	ND	UG/L	06/28/93	5.0	EPA # 625
Di-n-octylphthalate	ND	UG/L	06/28/93	5.0	EPA # 625
Benzo(b)fluoranthene	ND	UG/L	06/28/93	5.0	EPA # 625
Benzo(k)fluoranthene	ND	UG/L	06/28/93	5.0	EPA # 625
Benzo(a)pyrene	ND	UG/L	06/28/93	5.0	EPA # 625
Indeno(1,2,3-cd)pyrene	ND	UG/L	06/28/93	5.0	EPA # 625
Dibenz(a,h)anthracene	ND	UG/L	06/28/93	5.0	EPA # 625
Benzo(g,h,i)perylene	ND	UG/L	06/28/93	5.0	EPA # 625
Chlordane	ND	UG/L	06/28/93	5.0	EPA # 625
Toxaphene	ND	UG/L	06/28/93	1000.0	EPA # 625

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
AMERICAN ENVIRONMENTAL
LABORATORIES, INC.

REPORT NUMBER: AA21484

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PARAMETER	RESULT	UOM	TEST DATE	MDL	METHOD
PCB 1016	ND	UG/L	06/28/93	100.0	EPA # 625
PCB-1221	ND	UG/L	06/28/93	100.0	EPA # 625
PCB-1232	ND	UG/L	06/28/93	100.0	EPA # 625
PCB-1242	ND	UG/L	06/28/93	100.0	EPA # 625
PCB-1248	ND	UG/L	06/28/93	100.0	EPA # 625
PCB-1254	ND	UG/L	06/28/93	100.0	EPA # 625
PCB-1260	ND	UG/L	06/28/93	100.0	EPA # 625

DILUTION FACTOR: NONE

ANALYZED BY: 

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UOM - Unit of Measure
* - Exceeds EPA Guidelines
MDL - Method Detection Limit

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ND - Not Detected
TNTC - Too Numerous To Count



AMERICAN ENVIRONMENTAL
LABORATORIES, INC.

REPORT NUMBER: AA21948

Page 1 of 2

- LAB ID #: MA076 -

TO: Roy Brothers, Inc.
764 Boston Rd.
Pinehurst, MA 01866
ATTN: Arthur Roy

DATE RECEIVED : 06/21/93
DATE COLLECTED : 06/21/93
COLLECTED BY : AEL - EL
MATRIX : Grndwater

PO/ID NUMBER : AA21482

SAMPLE DESCRIPTION: MW-4

- ANALYTICAL RESULTS -

PARAMETER	RESULT	UOM	TEST DATE	MDL	METHOD
Chloromethane	ND	UG/L	06/24/93	5.00	EPA # 624
Vinyl Chloride	ND	UG/L	06/24/93	5.00	EPA # 624
Bromomethane	ND	UG/L	06/24/93	5.00	EPA # 624
Chloroethane	8.50	UG/L	06/24/93	5.00	EPA # 624
Trichlorofluoromethane	ND	UG/L	06/24/93	5.00	EPA # 624
1,1-Dichloroethene	ND	UG/L	06/24/93	5.00	EPA # 624
Methylene Chloride	ND	UG/L	06/24/93	10.0	EPA # 624
Trans-1,2-Dichloroethene	ND	UG/L	06/24/93	5.00	EPA # 624
1,1-Dichloroethane	ND	UG/L	06/24/93	5.00	EPA # 624
Chloroform (THM)	ND	UG/L	06/24/93	5.00	EPA # 624
1,1,1-Trichloroethane	ND	UG/L	06/24/93	5.00	EPA # 624
Carbon Tetrachloride	ND	UG/L	06/24/93	5.00	EPA # 624
Benzene	ND	UG/L	06/24/93	5.00	EPA # 624
1,2-Dichloroethane	ND	UG/L	06/24/93	5.00	EPA # 624
Trichloroethene	ND	UG/L	06/24/93	5.00	EPA # 624
1,2-Dichloropropane	ND	UG/L	06/24/93	5.00	EPA # 624
Bromodichloromethane (THM)	ND	UG/L	06/24/93	5.00	EPA # 624
Cis-1,3-Dichloropropene	ND	UG/L	06/24/93	5.00	EPA # 624
Toluene	ND	UG/L	06/24/93	5.00	EPA # 624
2-Chloroethylvinyl Ether	ND	UG/L	06/24/93	10.0	EPA # 624
Trans-1,3-Dichloropropene	ND	UG/L	06/24/93	5.00	EPA # 624
1,1,2-Trichloroethane	ND	UG/L	06/24/93	5.00	EPA # 624
Tetrachloroethene	ND	UG/L	06/24/93	5.00	EPA # 624
Dibromochloromethane (THM)	ND	UG/L	06/24/93	5.00	EPA # 624
Chlorobenzene	ND	UG/L	06/24/93	5.00	EPA # 624
Ethylbenzene	ND	UG/L	06/24/93	5.00	EPA # 624
Total Xylenes	ND	UG/L	06/24/93	5.00	EPA # 624
Bromoform (THM)	ND	UG/L	06/24/93	5.00	EPA # 624
1,1,2,2-Tetrachloroethane	ND	UG/L	06/24/93	5.00	EPA # 624
1,3-Dichlorobenzene	ND	UG/L	06/24/93	5.00	EPA # 624

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AMERICAN ENVIRONMENTAL
LABORATORIES, INC.

REPORT NUMBER: AA21948

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PARAMETER	RESULT	UOM	TEST DATE	MDL	METHOD
1,4-Dichlorobenzene	ND	UG/L	06/24/93	5.00	EPA # 624
1,2-Dichlorobenzene	ND	UG/L	06/24/93	5.00	EPA # 624
DILUTION FACTOR: NONE					

ANALYZED BY: (*JC*)

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MDL - Method Detection Limit

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ND - Not Detected
TNTC - Too Numerous To Count

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AMERICAN ENVIRONMENTAL
LABORATORIES, INC.

REPORT NUMBER: AA21948

Page 1 of 3

- LAB ID #: MA076 -

TO: Roy Brothers, Inc.
764 Boston Rd.
Pinehurst, MA 01866
ATTN: Arthur Roy

DATE RECEIVED : 06/21/93
DATE COLLECTED : 06/21/93
COLLECTED BY : AEL - EL
MATRIX : Grndwater

PO/ID NUMBER : AA21482

SAMPLE DESCRIPTION: MW-4

- ANALYTICAL RESULTS -

PARAMETER	RESULT	UOM	TEST DATE	MDL	METHOD
N-Nitrosomethylethylamine	ND	UG/L	06/28/93	5.0	EPA # 625
Phenol	ND	UG/L	06/28/93	5.0	EPA # 625
Bis(2-Chloroethyl)ether	ND	UG/L	06/28/93	5.0	EPA # 625
2-Chlorophenol	ND	UG/L	06/28/93	5.0	EPA # 625
1,3-Dichlorobenzene	ND	UG/L	06/28/93	5.0	EPA # 625
1,4-Dichlorobenzene	ND	UG/L	06/28/93	5.0	EPA # 625
1,2-Dichlorobenzene	ND	UG/L	06/28/93	5.0	EPA # 625
Bis(2-Chloroisopropyl)ether	ND	UG/L	06/28/93	5.0	EPA # 625
N-Nitrosodi-n-propylamine	ND	UG/L	06/28/93	5.0	EPA # 625
Hexachloroethane	ND	UG/L	06/28/93	5.0	EPA # 625
Nitrobenzene	ND	UG/L	06/28/93	5.0	EPA # 625
Isophorone	ND	UG/L	06/28/93	5.0	EPA # 625
2-Nitrophenol	ND	UG/L	06/28/93	5.0	EPA # 625
2,4-Dimethylphenol	ND	UG/L	06/28/93	5.0	EPA # 625
Bis(2-Chloroethoxy)methane	ND	UG/L	06/28/93	5.0	EPA # 625
2,4-Dichlorophenol	ND	UG/L	06/28/93	20.0	EPA # 625
1,2,4-Trichlorobenzene	ND	UG/L	06/28/93	5.0	EPA # 625
Naphthalene	ND	UG/L	06/28/93	5.0	EPA # 625
Hexachlorobutadiene	ND	UG/L	06/28/93	5.0	EPA # 625
4-Chloro-3-Methylphenol	ND	UG/L	06/28/93	5.0	EPA # 625
Hexachlorocyclopentadiene	ND	UG/L	06/28/93	5.0	EPA # 625
2,4,6-Trichlorophenol	ND	UG/L	06/28/93	5.0	EPA # 625
2-Chloronaphthalene	ND	UG/L	06/28/93	5.0	EPA # 625
Dimethylphthalate	ND	UG/L	06/28/93	5.0	EPA # 625
Acenaphthylene	ND	UG/L	06/28/93	5.0	EPA # 625
2,6-Dinitrotoluene	ND	UG/L	06/28/93	5.0	EPA # 625
Acenaphthene	ND	UG/L	06/28/93	5.0	EPA # 625
2,4-Dinitrophenol	ND	UG/L	06/28/93	20.0	EPA # 625
4-Nitrophenol	ND	UG/L	06/28/93	5.0	EPA # 625
2,4-Dinitrotoluene	ND	UG/L	06/28/93	5.0	EPA # 625

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AMERICAN ENVIRONMENTAL
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REPORT NUMBER: AA21948

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PARAMETER	RESULT	UOM	TEST DATE	MDL	METHOD
Diethylphthalate	ND	UG/L	06/28/93	5.0	EPA # 625
Fluorene	ND	UG/L	06/28/93	5.0	EPA # 625
4-Chlorophenyl-phenylether	ND	UG/L	06/28/93	5.0	EPA # 625
2-Methyl-4,6-Dinitrophenol	ND	UG/L	06/28/93	20.0	EPA # 625
N-Nitrosodiphenylamine	ND	UG/L	06/28/93	5.0	EPA # 625
4-Bromophenyl-phenylether	ND	UG/L	06/28/93	5.0	EPA # 625
a-BHC	ND	UG/L	06/28/93	5.0	EPA # 625
Hexachlorobenzene	ND	UG/L	06/28/93	5.0	EPA # 625
b-BHC	ND	UG/L	06/28/93	5.0	EPA # 625
Pentachlorophenol	ND	UG/L	06/28/93	5.0	EPA # 625
y-BHC (Lindane)	ND	UG/L	06/28/93	5.0	EPA # 625
Phenanthrene	ND	UG/L	06/28/93	5.0	EPA # 625
Anthracene	ND	UG/L	06/28/93	5.0	EPA # 625
d-BHC	ND	UG/L	06/28/93	5.0	EPA # 625
Heptachlor	ND	UG/L	06/28/93	5.0	EPA # 625
Di-n-butylphthalate	ND	UG/L	06/28/93	5.0	EPA # 625
Aldrin	ND	UG/L	06/28/93	5.0	EPA # 625
Heptachlor Epoxide	ND	UG/L	06/28/93	5.0	EPA # 625
Fluoranthene	ND	UG/L	06/28/93	5.0	EPA # 625
Benzidine	ND	UG/L	06/28/93	5.0	EPA # 625
Pyrene	ND	UG/L	06/28/93	5.0	EPA # 625
Endosulfan I	ND	UG/L	06/28/93	5.0	EPA # 625
4,4-DDE	ND	UG/L	06/28/93	5.0	EPA # 625
Endrin	ND	UG/L	06/28/93	5.0	EPA # 625
Dieldrin	ND	UG/L	06/28/93	5.0	EPA # 625
Endosulfan II	ND	UG/L	06/28/93	5.0	EPA # 625
4,4-DDD	ND	UG/L	06/28/93	5.0	EPA # 625
Butylbenzylphthalate	ND	UG/L	06/28/93	5.0	EPA # 625
4,4-DDT	ND	UG/L	06/28/93	5.0	EPA # 625
Endosulfan Sulfate	ND	UG/L	06/28/93	5.0	EPA # 625
Endrin Aldehyde	ND	UG/L	06/28/93	5.0	EPA # 625
3,3-Dichlorobenzidine	ND	UG/L	06/28/93	5.0	EPA # 625
Benzo(a)anthracene	ND	UG/L	06/28/93	5.0	EPA # 625
Chrysene	ND	UG/L	06/28/93	5.0	EPA # 625
Bis(2-Ethylhexyl)phthalate	ND	UG/L	06/28/93	5.0	EPA # 625
Di-n-octylphthalate	ND	UG/L	06/28/93	5.0	EPA # 625
Benzo(b)fluoranthene	ND	UG/L	06/28/93	5.0	EPA # 625
Benzo(k)fluoranthene	ND	UG/L	06/28/93	5.0	EPA # 625
Benzo(a)pyrene	ND	UG/L	06/28/93	5.0	EPA # 625
Indeno(1,2,3-cd)pyrene	ND	UG/L	06/28/93	5.0	EPA # 625
Dibenz(a,h)anthracene	ND	UG/L	06/28/93	5.0	EPA # 625
Benzo(g,h,i)perylene	ND	UG/L	06/28/93	5.0	EPA # 625
Chlordane	ND	UG/L	06/28/93	5.0	EPA # 625
Toxaphene	ND	UG/L	06/28/93	1000.0	EPA # 625

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**AMERICAN ENVIRONMENTAL
LABORATORIES, INC.**

REPORT NUMBER: AA21948

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PARAMETER	RESULT	UOM	TEST DATE	MDL	METHOD
PCB 1016	ND	UG/L	06/28/93	100.0	EPA # 625
PCB-1221	ND	UG/L	06/28/93	100.0	EPA # 625
PCB-1232	ND	UG/L	06/28/93	100.0	EPA # 625
PCB-1242	ND	UG/L	06/28/93	100.0	EPA # 625
PCB-1248	ND	UG/L	06/28/93	100.0	EPA # 625
PCB-1254	ND	UG/L	06/28/93	100.0	EPA # 625
PCB-1260	ND	UG/L	06/28/93	100.0	EPA # 625

DILUTION FACTOR: NONE

ANALYZED BY: (KAP)

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UOM - Unit of Measure
* - Exceeds EPA Guidelines
MDL - Method Detection Limit

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ND - Not Detected
TNTC - Too Numerous To Count

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AMERICAN ENVIRONMENTAL
LABORATORIES, INC.

REPORT NUMBER: AA21486

Page 1 of 1

- LAB ID #: MA076 -

TO: Roy Brothers, Inc.
764 Boston Rd.
Pinehurst, MA 01866
ATTN: Arthur Roy

DATE RECEIVED : 06/22/93
DATE COLLECTED : 06/21/93
COLLECTED BY : AEL - EL
MATRIX : Grndwater

PO/ID NUMBER : AA21482

SAMPLE DESCRIPTION: MW-5

- ANALYTICAL RESULTS -

PARAMETER	RESULT	UOM	TEST DATE	MDL	METHOD
DISSOLVED	COMPLETED				
ARSENIC	ND	MG/L	06/23/93	0.006	EPA # 200.7
ANTIMONY	ND	MG/L	06/23/93	0.002	EPA # 204.2
BERYLLIUM	ND	MG/L	06/23/93	0.001	EPA # 200.7
CADMIUM	ND	MG/L	06/23/93	0.003	EPA # 200.7
CHROMIUM	ND	MG/L	06/23/93	0.006	EPA # 200.7
COPPER	ND	MG/L	06/23/93	0.006	EPA # 200.7
LEAD	ND	MG/L	06/23/93	0.0005	EPA # 239.2
MERCURY	ND	MG/L	06/23/93	0.0002	EPA # 245.1
NICKEL	ND	MG/L	06/23/93	0.006	EPA # 200.7
SELENIUM	ND	MG/L	06/23/93	0.006	EPA # 200.7
SILVER	ND	MG/L	06/23/93	0.003	EPA # 200.7
THALLIUM	ND	MG/L	06/23/93	0.001	EPA # 279.2
ZINC	ND	MG/L	06/23/93	0.003	EPA # 200.7

ANALYZED BY: 

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* - Exceeds EPA Guidelines
MDL - Method Detection Limit

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ND - Not Detected
TNIC - Too Numerous To Count

Please Recycle 



AMERICAN ENVIRONMENTAL
LABORATORIES, INC.

REPORT NUMBER: AA21486

Page 1 of 2

- LAB ID #: MA076 -

TO: Roy Brothers, Inc.
764 Boston Rd.
Pinehurst, MA 01866
ATTN: Arthur Roy

DATE RECEIVED : 06/22/93
DATE COLLECTED : 06/21/93
COLLECTED BY : AEL - EL
MATRIX : Grndwater

PO/ID NUMBER : AA21482

SAMPLE DESCRIPTION: MW-5

- ANALYTICAL RESULTS -

PARAMETER	RESULT	UOM	TEST DATE	MDL	METHOD
Chloromethane	ND	UG/L	06/24/93	5.00	EPA # 624
Vinyl Chloride	ND	UG/L	06/24/93	5.00	EPA # 624
Bromomethane	ND	UG/L	06/24/93	5.00	EPA # 624
Chloroethane	ND	UG/L	06/24/93	5.00	EPA # 624
Trichlorofluoromethane	ND	UG/L	06/24/93	5.00	EPA # 624
1,1-Dichloroethene	ND	UG/L	06/24/93	5.00	EPA # 624
Methylene Chloride	ND	UG/L	06/24/93	10.0	EPA # 624
Trans-1,2-Dichloroethene	ND	UG/L	06/24/93	5.00	EPA # 624
1,1-Dichloroethane	ND	UG/L	06/24/93	5.00	EPA # 624
Chloroform (THM)	ND	UG/L	06/24/93	5.00	EPA # 624
1,1,1-Trichloroethane	ND	UG/L	06/24/93	5.00	EPA # 624
Carbon Tetrachloride	ND	UG/L	06/24/93	5.00	EPA # 624
Benzene	ND	UG/L	06/24/93	5.00	EPA # 624
1,2-Dichloroethane	ND	UG/L	06/24/93	5.00	EPA # 624
Trichloroethene	ND	UG/L	06/24/93	5.00	EPA # 624
1,2-Dichloropropane	ND	UG/L	06/24/93	5.00	EPA # 624
Bromodichloromethane (THM)	ND	UG/L	06/24/93	5.00	EPA # 624
Cis-1,3-Dichloropropene	ND	UG/L	06/24/93	5.00	EPA # 624
Toluene	13.9	UG/L	06/24/93	5.00	EPA # 624
2-Chloroethylvinyl Ether	ND	UG/L	06/24/93	10.0	EPA # 624
Trans-1,3-Dichloropropene	ND	UG/L	06/24/93	5.00	EPA # 624
1,1,2-Trichloroethane	ND	UG/L	06/24/93	5.00	EPA # 624
Tetrachloroethene	ND	UG/L	06/24/93	5.00	EPA # 624
Dibromochloromethane (THM)	ND	UG/L	06/24/93	5.00	EPA # 624
Chlorobenzene	ND	UG/L	06/24/93	5.00	EPA # 624
Ethylbenzene	655	UG/L	06/24/93	5.00	EPA # 624
Total Xylenes	112	UG/L	06/24/93	5.00	EPA # 624
Bromoform (THM)	ND	UG/L	06/24/93	5.00	EPA # 624
1,1,2,2-Tetrachloroethane	ND	UG/L	06/24/93	5.00	EPA # 624
1,3-Dichlorobenzene	ND	UG/L	06/24/93	5.00	EPA # 624

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AMERICAN ENVIRONMENTAL
LABORATORIES, INC.

REPORT NUMBER: AA21486

Page 2 of 2

PARAMETER	RESULT	UOM	TEST DATE	MDL	METHOD
1,4-Dichlorobenzene	ND	UG/L	06/24/93	5.00	EPA # 624
1,2-Dichlorobenzene	ND	UG/L	06/24/93	5.00	EPA # 624
Dilution Factor	NONE	TIMES			

ANALYZED BY: ()

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MDL - Method Detection Limit

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ND - Not Detected
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AMERICAN ENVIRONMENTAL
LABORATORIES, INC.

REPORT NUMBER: AA21486

Page 1 of 3

- LAB ID #: MA076 -

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764 Boston Rd.
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DATE RECEIVED : 06/22/93
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COLLECTED BY : AEL - EL
MATRIX : Grndwater

PO/ID NUMBER : AA21482

SAMPLE DESCRIPTION: MW-5

- ANALYTICAL RESULTS -

PARAMETER	RESULT	UOM	TEST DATE	MDL	METHOD
N-Nitrosomethylethylamine	ND	UG/L	06/28/93	5.0	EPA # 625
Phenol	ND	UG/L	06/28/93	5.0	EPA # 625
Bis(2-Chloroethyl)ether	ND	UG/L	06/28/93	5.0	EPA # 625
2-Chlorophenol	ND	UG/L	06/28/93	5.0	EPA # 625
1,3-Dichlorobenzene	ND	UG/L	06/28/93	5.0	EPA # 625
1,4-Dichlorobenzene	ND	UG/L	06/28/93	5.0	EPA # 625
1,2-Dichlorobenzene	ND	UG/L	06/28/93	5.0	EPA # 625
Bis(2-Chloroisopropyl)ether	ND	UG/L	06/28/93	5.0	EPA # 625
N-Nitrosodi-n-propylamine	ND	UG/L	06/28/93	5.0	EPA # 625
Hexachloroethane	ND	UG/L	06/28/93	5.0	EPA # 625
Nitrobenzene	ND	UG/L	06/28/93	5.0	EPA # 625
Isophorone	ND	UG/L	06/28/93	5.0	EPA # 625
2-Nitrophenol	ND	UG/L	06/28/93	5.0	EPA # 625
2,4-Dimethylphenol	ND	UG/L	06/28/93	5.0	EPA # 625
Bis(2-Chloroethoxy)methane	ND	UG/L	06/28/93	5.0	EPA # 625
2,4-Dichlorophenol	ND	UG/L	06/28/93	20.0	EPA # 625
1,2,4-Trichlorobenzene	ND	UG/L	06/28/93	5.0	EPA # 625
Naphthalene	13.6	UG/L	06/28/93	5.0	EPA # 625
Hexachlorobutadiene	ND	UG/L	06/28/93	5.0	EPA # 625
4-Chloro-3-Methylphenol	ND	UG/L	06/28/93	5.0	EPA # 625
Hexachlorocyclopentadiene	ND	UG/L	06/28/93	5.0	EPA # 625
2,4,6-Trichlorophenol	ND	UG/L	06/28/93	5.0	EPA # 625
2-Chloronaphthalene	ND	UG/L	06/28/93	5.0	EPA # 625
Dimethylphthalate	ND	UG/L	06/28/93	5.0	EPA # 625
Acenaphthylene	ND	UG/L	06/28/93	5.0	EPA # 625
2,6-Dinitrotoluene	ND	UG/L	06/28/93	5.0	EPA # 625
Acenaphthene	ND	UG/L	06/28/93	5.0	EPA # 625
2,4-Dinitrophenol	ND	UG/L	06/28/93	20.0	EPA # 625
4-Nitrophenol	ND	UG/L	06/28/93	5.0	EPA # 625
2,4-Dinitrotoluene	ND	UG/L	06/28/93	5.0	EPA # 625

60 Elm Hill Avenue, Leominster, Massachusetts 01453
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AMERICAN ENVIRONMENTAL
LABORATORIES, INC.

REPORT NUMBER: AA21486

Page 2 of 3

PARAMETER	RESULT	UOM	TEST DATE	MDL	METHOD
Diethylphthalate	ND	UG/L	06/28/93	5.0	EPA # 625
Fluorene	7.20	UG/L	06/28/93	5.0	EPA # 625
4-Chlorophenyl-phenylether	ND	UG/L	06/28/93	5.0	EPA # 625
2-Methyl-4,6-Dinitrophenol	ND	UG/L	06/28/93	20.0	EPA # 625
N-Nitrosodiphenylamine	ND	UG/L	06/28/93	5.0	EPA # 625
4-Bromophenyl-phenylether	ND	UG/L	06/28/93	5.0	EPA # 625
a-BHC	ND	UG/L	06/28/93	5.0	EPA # 625
Hexachlorobenzene	ND	UG/L	06/28/93	5.0	EPA # 625
b-BHC	ND	UG/L	06/28/93	5.0	EPA # 625
Pentachlorophenol	ND	UG/L	06/28/93	5.0	EPA # 625
γ-BHC (Lindane)	ND	UG/L	06/28/93	5.0	EPA # 625
Phenanthrene	ND	UG/L	06/28/93	5.0	EPA # 625
Anthracene	ND	UG/L	06/28/93	5.0	EPA # 625
d-BHC	ND	UG/L	06/28/93	5.0	EPA # 625
Heptachlor	ND	UG/L	06/28/93	5.0	EPA # 625
Di-n-butylphthalate	28.1	UG/L	06/28/93	5.0	EPA # 625
Aldrin	ND	UG/L	06/28/93	5.0	EPA # 625
Heptachlor Epoxide	ND	UG/L	06/28/93	5.0	EPA # 625
Fluoranthene	ND	UG/L	06/28/93	5.0	EPA # 625
Benzidine	ND	UG/L	06/28/93	5.0	EPA # 625
Pyrene	ND	UG/L	06/28/93	5.0	EPA # 625
Endosulfan I	ND	UG/L	06/28/93	5.0	EPA # 625
4,4-DDE	ND	UG/L	06/28/93	5.0	EPA # 625
Endrin	ND	UG/L	06/28/93	5.0	EPA # 625
Dieldrin	ND	UG/L	06/28/93	5.0	EPA # 625
Endosulfan II	ND	UG/L	06/28/93	5.0	EPA # 625
4,4-DDD	ND	UG/L	06/28/93	5.0	EPA # 625
Butylbenzylphthalate	ND	UG/L	06/28/93	5.0	EPA # 625
4,4-DDT	ND	UG/L	06/28/93	5.0	EPA # 625
Endosulfan Sulfate	ND	UG/L	06/28/93	5.0	EPA # 625
Endrin Aldehyde	ND	UG/L	06/28/93	5.0	EPA # 625
3,3-Dichlorobenzidine	ND	UG/L	06/28/93	5.0	EPA # 625
Benzo(a)anthracene	ND	UG/L	06/28/93	5.0	EPA # 625
Chrysene	ND	UG/L	06/28/93	5.0	EPA # 625
Bis(2-Ethylhexyl)phthalate	67.4	UG/L	06/28/93	5.0	EPA # 625
Di-n-octylphthalate	ND	UG/L	06/28/93	5.0	EPA # 625
Benzo(b)fluoranthene	ND	UG/L	06/28/93	5.0	EPA # 625
Benzo(k)fluoranthene	ND	UG/L	06/28/93	5.0	EPA # 625
Benzo(a)pyrene	ND	UG/L	06/28/93	5.0	EPA # 625
Indeno(1,2,3-cd)pyrene	ND	UG/L	06/28/93	5.0	EPA # 625
Dibenz(a,h)anthracene	ND	UG/L	06/28/93	5.0	EPA # 625
Benzo(g,h,i)perylene	ND	UG/L	06/28/93	5.0	EPA # 625
Chlordane	ND	UG/L	06/28/93	5.0	EPA # 625
Toxaphene	ND	UG/L	06/28/93	1000.0	EPA # 625

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AMERICAN ENVIRONMENTAL
LABORATORIES, INC.

REPORT NUMBER: AA21486

Page 3 of 3

PARAMETER	RESULT	UOM	TEST DATE	MDL	METHOD
PCB 1016	ND	UG/L	06/28/93	100.0	EPA # 625
PCB-1221	ND	UG/L	06/28/93	100.0	EPA # 625
PCB-1232	ND	UG/L	06/28/93	100.0	EPA # 625
PCB-1242	ND	UG/L	06/28/93	100.0	EPA # 625
PCB-1248	ND	UG/L	06/28/93	100.0	EPA # 625
PCB-1254	ND	UG/L	06/28/93	100.0	EPA # 625
PCB-1260	ND	UG/L	06/28/93	100.0	EPA # 625
DILUTION FACTOR: NONE					

ANALYZED BY: *AD*

These results apply only to the actual sample as tested. The integrity of results is dependent upon the quality of the sampling technique and subsequent handling. Actual detection limits are the above reported MDLs multiplied by dilution factors, if any. American Environmental Laboratories shall not be held liable for any interpretation of analytical results.

UOM - Unit of Measure
* - Exceeds EPA Guidelines
MDL - Method Detection Limit

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ND - Not Detected
TNTC - Too Numerous To Count

Please Recycle ♻



149 Rangeway Road
N. Billerica, Massachusetts 01862
508 / 667-1400
Fax 508 / 667-7871

CHAIN OF CUSTODY RECORD

REGULATORY CLASSIFICATION - PLEASE SPECIFY

☐ NPDES ☐ DRINKING WATER ☐ RCRA ☒ MCP ☐ OTHER

REQUIRED

CUST.
P.O.

IEA
QUOTE
#

TURN AROUND

☐ 15 BUSINESS DAY
☒ 10 BUSINESS DAY
☐ RUSH
☐ OTHER

COMPANY		CONTACT PERSON		PROJECT I.D.		PHONE #		FAX #								
Bart Pauldings		SAmr		952132		508 448-2549		266								
ADDRESS				MATRIX	CONTAINER TYPE	# OF CONTAINERS	PRESERVATIVES	REQUESTED PARAMETERS						(COMMENTS)		
CITY	STATE	ZIP														
P.O. Box 247		MA		01472												
DATE	TIME	SAMPLE I.D.														
6-1-95	12:40	mw-5		W	G	6	HCL	X	X	X						
	2:04	mw-4		W	G	6	HCL	X	X	X						
	1:55	mw-6		W	G	5	HCL	X	X							
	1:25	mw-7		W	G	6	HCL	X	X	X						
		Toip Blk h		W	G	1	HCL	X								

IEA USE ONLY			
SAMPLED BY: <u>Luke Fabbri</u> (PRINT NAME)		<u>[Signature]</u> (SIGNATURE)	
RELINQUISHED BY (SIGNATURE)	DATE / TIME	RECEIVED BY	DATE / TIME
<u>[Signature]</u>	6/1/95 5:32		
RELINQUISHED BY (SIGNATURE)	DATE / TIME	RECEIVED FOR LAB BY	DATE / TIME
		<u>[Signature]</u>	6/1/95 5:32
FIELD REMARKS			
Roy Brothers, Billerica Sampled By GFS, TUC			

ATTACHMENT H

ROY BROS HAULERS

**SOIL SAMPLE ANALYTICAL RESULTS
PAULDING COMPANY, INC.**

Samples collected 18 May 1995



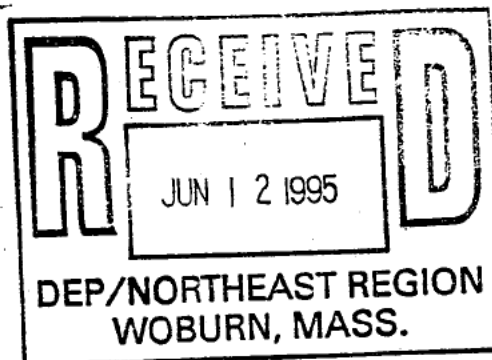
IEA

An Aquarion Company

149 Rangeway Road
North Billerica, MA 01

764 Boston Rd
Phone 508-667-1400
Fax 508-667-7871
BILLERICA

Mr. Leo Roy
Roy Bros., Inc.
764 Boston Rd.
Billerica, MA 01821



June 6, 1995

Dear Mr. Roy:

Please find enclosed the analytical results of the sample(s) received at our laboratory on May 19, 1995. This report contains sections addressing the following information at a minimum:

- analytical results
- chain-of-custody (if applicable)

Client Project #	8579	Client Project Name	N/A
IEA Report #	R128-005	Purchase Order #	N/A

Copies of this analytical report and supporting data are maintained in our files for a minimum of 3 years unless special arrangements are made. Unless specifically indicated, all analytical testing was performed at the IEA-Massachusetts laboratory.

We appreciate your selection of our services and welcome any questions or suggestions you may have relative to this report. Please contact your customer service representative at (508) 667-1400 for any additional information. Thank you for utilizing our services and we hope you will consider us for your future analytical needs.

I have reviewed and approved the enclosed data for final release.

Sincerely,

Michael F. Wheeler, Ph.D.
Laboratory Director
IEA-Massachusetts

MW/smb

cc: Bart Paulding

DOC# RPF00300.MA

Monroe,
Connecticut
203-261-4458

Sunrise,
Florida
305-846-1730

Schaumburg,
Illinois
708-705-0740

Whippany,
New Jersey
201-428-8181

Research Triangle Park,
North Carolina
919-677-0090





IEA

An Aquarion Company

QA/QC NOTICE

Report Date: 06/06/95
Client: Roy Bros., Inc.
Project: 8579

Received Date: 05/19/95
IEA Job Number: R128-005

=====

As indicated on the chain of custody, samples E-2 (#1, #2, #3) and E-5 (#1, #2) were composited prior to analysis.

Doc# QAF00100.MA



**IEA**

An Aquarion Company

IEA LABORATORY RESULTS

Report Date: 06/06/95
Client: Roy Bros., Inc.
Project: 8579

Received Date: 05/19/95
IEA Job Number: R128-005

IEA Sample	Client ID	Parameter	Results	Units	PQL	Date Analyzed
#						
=====						
TOTAL METALS						
1	TB-1 #5	Antimony	BQL	mg/kg (dry)	20	06/02/95
1	TB-1 #5	Arsenic	9.51	mg/kg (dry)	0.50	05/30/95
1	TB-1 #5	Beryllium	BQL	mg/kg (dry)	1.0	06/02/95
1	TB-1 #5	Cadmium	BQL	mg/kg (dry)	1.0	06/02/95
1	TB-1 #5	Chromium	42.2	mg/kg (dry)	3.0	06/02/95
1	TB-1 #5	Copper	14.9	mg/kg (dry)	2.0	06/02/95
1	TB-1 #5	Lead	4.58	mg/kg (dry)	0.50	06/02/95
1	TB-1 #5	Mercury	BQL	mg/kg (dry)	0.10	05/24/95
1	TB-1 #5	Nickel	11.6	mg/kg (dry)	3.0	06/02/95
1	TB-1 #5	Selenium	BQL	mg/kg (dry)	0.50	05/31/95
1	TB-1 #5	Silver	BQL	mg/kg (dry)	2.0	06/02/95
1	TB-1 #5	Thallium	BQL	mg/kg (dry)	0.50	06/01/95
1	TB-1 #5	Zinc	18.9	mg/kg (dry)	2.0	06/02/95
TOTAL METALS						
3	TB-1 #1	Antimony	BQL	mg/kg (dry)	20	06/02/95
3	TB-1 #1	Arsenic	4.44	mg/kg (dry)	0.50	05/30/95
3	TB-1 #1	Beryllium	BQL	mg/kg (dry)	1.0	06/02/95
3	TB-1 #1	Cadmium	1.1	mg/kg (dry)	1.0	06/02/95
3	TB-1 #1	Chromium	69.7	mg/kg (dry)	3.0	06/02/95
3	TB-1 #1	Copper	32.8	mg/kg (dry)	2.0	06/02/95
3	TB-1 #1	Lead	6.61	mg/kg (dry)	0.50	06/02/95
3	TB-1 #1	Mercury	BQL	mg/kg (dry)	0.10	05/24/95
3	TB-1 #1	Nickel	7.2	mg/kg (dry)	3.0	06/02/95
3	TB-1 #1	Selenium	BQL	mg/kg (dry)	0.50	05/31/95
3	TB-1 #1	Silver	BQL	mg/kg (dry)	2.0	06/02/95
3	TB-1 #1	Thallium	BQL	mg/kg (dry)	0.50	06/01/95
3	TB-1 #1	Zinc	25.2	mg/kg (dry)	2.0	06/02/95



**IEA**

An Aquarion Company

IEA LABORATORY RESULTS

Report Date: 06/06/95
Client: Roy Bros., Inc.
Project: 8579

Received Date: 05/19/95
IEA Job Number: R128-005

IEA Sample #	Client ID	Parameter	Results	Units	PQL	Date Analyzed
=====						
TOTAL METALS						
10	E-5 #1, #2	Antimony	BQL	mg/kg (dry)	20	06/02/95
10	E-5 #1, #2	Arsenic	5.39	mg/kg (dry)	0.50	05/30/95
10	E-5 #1, #2	Beryllium	BQL	mg/kg (dry)	1.0	06/02/95
10	E-5 #1, #2	Cadmium	BQL	mg/kg (dry)	1.0	06/02/95
10	E-5 #1, #2	Chromium	39.1	mg/kg (dry)	3.0	06/02/95
10	E-5 #1, #2	Copper	26.8	mg/kg (dry)	2.0	06/02/95
10	E-5 #1, #2	Lead	89	mg/kg (dry)	10	06/02/95
10	E-5 #1, #2	Mercury	BQL	mg/kg (dry)	0.10	05/24/95
10	E-5 #1, #2	Nickel	17.3	mg/kg (dry)	3.0	06/02/95
10	E-5 #1, #2	Selenium	BQL	mg/kg (dry)	0.50	05/31/95
10	E-5 #1, #2	Silver	BQL	mg/kg (dry)	2.0	06/02/95
10	E-5 #1, #2	Thallium	BQL	mg/kg (dry)	0.50	06/01/95
10	E-5 #1, #2	Zinc	85.1	mg/kg (dry)	2.0	06/02/95
TOTAL METALS						
11	E-6 #1	Antimony	BQL	mg/kg (dry)	20	06/02/95
11	E-6 #1	Arsenic	3.67	mg/kg (dry)	0.50	05/30/95
11	E-6 #1	Beryllium	BQL	mg/kg (dry)	1.0	06/02/95
11	E-6 #1	Cadmium	1.9	mg/kg (dry)	1.0	06/02/95
11	E-6 #1	Chromium	13.5	mg/kg (dry)	3.0	06/02/95
11	E-6 #1	Copper	9.6	mg/kg (dry)	2.0	06/02/95
11	E-6 #1	Lead	12	mg/kg (dry)	10	06/02/95
11	E-6 #1	Mercury	BQL	mg/kg (dry)	0.10	05/24/95
11	E-6 #1	Nickel	11.0	mg/kg (dry)	3.0	06/02/95
11	E-6 #1	Selenium	BQL	mg/kg (dry)	0.50	05/31/95
11	E-6 #1	Silver	BQL	mg/kg (dry)	2.0	06/02/95
11	E-6 #1	Thallium	BQL	mg/kg (dry)	0.50	06/01/95
11	E-6 #1	Zinc	141	mg/kg (dry)	2.0	06/02/95

COMMENTS:

PQL = Practical Quantitation Limit
BQL = Below Quantitation Limit

Result3.wk1 Rev. 041393



UNION OF LABORERS



IEA

An Aquarion Company

Analysis Report: Extractable Petroleum Hydrocarbons by GC/FID
EPA 8100 (Modified)

Client: Roy Bros., Inc.
Project: 8579
Report Date: 06/05/95
Collected: 05/18/95
Received: 05/19/95
Extracted: 05/24/95
Analyzed: 05/26/95
By: DB

IEA ID: R128-005-01
Sample: TB-1 #5
Type: Soil
Container: Glass

Dilution Factor: 1

Petroleum Product	Cn Range	Result mg/kg (dry)	PQL mg/kg (dry)	Fingerprint Match Quality
Kerosene (C7-C32)	---	BQL	20	---
Fuel Oil #2 (C8-C36)	---	BQL	20	---
Fuel Oil #6 (C8-C40)	---	BQL	100	---
Motor Oil (C14-C40)	---	BQL	100	---
Unknown	8-40	1,000	100	4

Match Quality Scale:

- 1 - Identical or nearly identical GC pattern.
- 2 - Similar GC pattern showing moderate differences.
- 3 - Significant difference in GC pattern.
- 4 - No agreement with GC patterns in target list. Quantitation based on petroleum product with similar Cn range.

Comments:

BQL = Below quantitation limit.
PQL = Practical quantitation limit.
Results for Coal Tar and Motor Oil based on chromatographable portions of petroleum product.
Cn range refers to the approximate chromatographic region covered by the specified petroleum product in straight-chain carbon units.

Doc# GCF00104.MA



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IEA

An Aquarion Company

Analysis Report: Extractable Petroleum Hydrocarbons by GC/FID
EPA 8100 (Modified)

Client:	Roy Bros., Inc.	IEA ID:	R128-005-02
Project:	8579	Sample:	TB-2 #1
Report Date:	06/05/95	Type:	Soil
Collected:	05/18/95	Container:	Glass
Received:	05/19/95		
Extracted:	05/24/95		
Analyzed:	05/26/95	Dilution Factor:	1.1
By:	DB		

Petroleum Product	Cn Range	Result mg/kg (dry)	PQL mg/kg (dry)	Fingerprint Match Quality
Kerosene (C7-C32)	---	BQL	22	---
Fuel Oil #2 (C8-C36)	8-24	520	22	3
Fuel Oil #6 (C8-C40)	---	BQL	110	---
Motor Oil (C14-C40)	---	BQL	110	---
Unknown	24-40	2,200	110	4

Match Quality Scale:

- 1 - Identical or nearly identical GC pattern.
- 2 - Similar GC pattern showing moderate differences.
- 3 - Significant difference in GC pattern.
- 4 - No agreement with GC patterns in target list. Quantitation based on petroleum product with similar Cn range.

Comments:

BQL = Below quantitation limit.

PQL = Practical quantitation limit.

Results for Coal Tar and Motor Oil based on chromatographable portions of petroleum product.

Cn range refers to the approximate chromatographic region covered by the specified petroleum product in straight-chain carbon units.

Doc# GCF00104.MA



00000000000000000000



IEA

An Aquarion Company

IEA LABORATORY RESULTS

Report Date: 06/06/95
Client: Roy Bros., Inc.
Project: 8579

Received Date: 05/19/95
IEA Job Number: R128-005

IEA Sample #	Client ID	Parameter	Results	Units	PQL	Date Analyzed
=====						
TOTAL METALS						
7	E-2 #1, #2, #3	Antimony	BQL	mg/kg (dry)	20	06/02/95
7	E-2 #1, #2, #3	Arsenic	4.23	mg/kg (dry)	0.50	05/30/95
7	E-2 #1, #2, #3	Beryllium	BQL	mg/kg (dry)	1.0	06/02/95
7	E-2 #1, #2, #3	Cadmium	5.4	mg/kg (dry)	1.0	06/02/95
7	E-2 #1, #2, #3	Chromium	139	mg/kg (dry)	3.0	06/02/95
7	E-2 #1, #2, #3	Copper	21.3	mg/kg (dry)	2.0	06/02/95
7	E-2 #1, #2, #3	Lead	33	mg/kg (dry)	10	06/02/95
7	E-2 #1, #2, #3	Mercury	BQL	mg/kg (dry)	0.10	05/24/95
7	E-2 #1, #2, #3	Nickel	12.6	mg/kg (dry)	3.0	06/02/95
7	E-2 #1, #2, #3	Selenium	BQL	mg/kg (dry)	0.50	05/31/95
7	E-2 #1, #2, #3	Silver	BQL	mg/kg (dry)	2.0	06/02/95
7	E-2 #1, #2, #3	Thallium	BQL	mg/kg (dry)	0.50	06/01/95
7	E-2 #1, #2, #3	Zinc	50.9	mg/kg (dry)	2.0	06/02/95
TOTAL METALS						
8	E-3 #2A	Antimony	BQL	mg/kg (dry)	20	06/02/95
8	E-3 #2A	Arsenic	4.89	mg/kg (dry)	0.50	05/30/95
8	E-3 #2A	Beryllium	BQL	mg/kg (dry)	1.0	06/02/95
8	E-3 #2A	Cadmium	BQL	mg/kg (dry)	1.0	06/02/95
8	E-3 #2A	Chromium	14.5	mg/kg (dry)	3.0	06/02/95
8	E-3 #2A	Copper	6.2	mg/kg (dry)	2.0	06/02/95
8	E-3 #2A	Lead	4.05	mg/kg (dry)	0.50	06/02/95
8	E-3 #2A	Mercury	BQL	mg/kg (dry)	0.10	05/24/95
8	E-3 #2A	Nickel	11.3	mg/kg (dry)	3.0	06/02/95
8	E-3 #2A	Selenium	BQL	mg/kg (dry)	0.50	05/31/95
8	E-3 #2A	Silver	BQL	mg/kg (dry)	2.0	06/02/95
8	E-3 #2A	Thallium	BQL	mg/kg (dry)	0.50	06/01/95
8	E-3 #2A	Zinc	14.6	mg/kg (dry)	2.0	06/02/95



**IEA**

An Aquarion Company

Analysis Report: EPA Method 8260A
(PAGE 1 OF 2 PAGES)

Client: Roy Bros., Inc.
Project: 8579
Report Date: 06/05/95
Collected: 05/18/95
Received: 05/19/95
Analyzed: 05/25/95
By: LJT

IEA ID: R128-005-01
Sample: TB-1 #5
Type: Soil
Container: Glass

Dilution Factor: 4.7

Priority Pollutant Compounds

Number	Compound	PQL ug/kg (dry)	Result ug/kg (dry)
1	Benzene	24	BQL
2	Bromodichloromethane	24	BQL
3	Bromoform	24	BQL
4	Bromomethane	47	BQL
5	Carbon tetrachloride	24	BQL
6	Chlorobenzene	24	BQL
7	Chloroethane	47	BQL
8	2-Chloroethylvinyl ether	24	BQL
9	Chloroform	24	BQL
10	Chloromethane	47	BQL
11	Dibromochloromethane	24	BQL
12	1,2-Dichlorobenzene	24	25
13	1,3-Dichlorobenzene	24	BQL
14	1,4-Dichlorobenzene	24	BQL
15	1,1-Dichloroethane	24	BQL
16	1,2-Dichloroethane	24	BQL
17	1,1-Dichloroethene	24	BQL
18	1,2-Dichloroethenes (Total)	24	BQL
19	1,2-Dichloropropane	24	BQL
20	cis-1,3-Dichloropropene	24	BQL
21	trans-1,3-Dichloropropene	24	BQL
22	Ethylbenzene	24	850
23	Methylene chloride	24	BQL
24	1,1,2,2-Tetrachloroethane	24	BQL
25	Tetrachloroethene	24	BQL
26	Toluene	24	BQL
27	1,1,1-Trichloroethane	24	BQL
28	1,1,2-Trichloroethane	24	BQL
29	Trichloroethene	24	BQL
30	Trichlorofluoromethane	24	BQL
31	Vinyl chloride	47	BQL

Doc# MSF11901.MA



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**IEA**

An Aquarion Company

Analysis Report: EPA Method 8260A
(PAGE 2 OF 2 PAGES)Client: Roy Bros., Inc.
Project: 8579IEA ID: R128-005-01
Sample: TB-1 #5

Other TCL Compounds

Number	Compound	PQL ug/kg (dry)	Result ug/kg (dry)
32	Acetone	470	BQL
33	2-Butanone	470	BQL
34	n-Butylbenzene	24	BQL
35	s-Butylbenzene	24	BQL
36	t-Butylbenzene	24	BQL
37	Carbon disulfide	24	BQL
38	2-Chlorotoluene	24	BQL
39	4-Chlorotoluene	24	BQL
40	1,2-Dibromoethane	24	BQL
41	2-Hexanone	94	BQL
42	Hexachlorobutadiene	24	BQL
43	Isopropylbenzene	24	BQL
44	p-Isopropyltoluene	24	BQL
45	4-Methyl-2-pentanone	94	BQL
46	Methyl-t-butyl ether	24	BQL
47	Naphthalene	235	BQL
48	n-Propylbenzene	24	BQL
49	Styrene	24	BQL
50	1,1,1,2-Tetrachloroethane	24	BQL
51	1,2,3-Trichlorobenzene	24	BQL
52	1,2,4-Trichlorobenzene	24	BQL
53	1,2,4-Trimethylbenzene	24	61 BQL
54	1,3,5-Trimethylbenzene	24	BQL
55	Vinyl acetate	94	BQL
56	Xylenes (Total)	24	BQL

Surrogate Standard Recovery:

1,2-Dichloroethane-d4	93 %
Toluene-d8	96 %
Bromofluorobenzene	88 %

COMMENTS:

BQL = Below Quantitation Limit.

PQL = Practical Quantitation Limit.

Smaller amount of sample analyzed due to the high concentration of target compounds present.

Quantitation limit elevated due to smaller amount of sample analyzed.

Doc# MSF11901.MA



FORM 8260-1 (REVISED 12/89)



IEA

An Aquarion Company

Analysis Report: EPA Method 8260A
(PAGE 1 OF 2 PAGES)

Client: Roy Bros., Inc.
Project: 8579
Report Date: 06/05/95
Collected: 05/18/95
Received: 05/19/95
Analyzed: 05/25/95
By: LJT

IEA ID: R128-005-02
Sample: TB-2 #1
Type: Soil
Container: Glass

Dilution Factor: 8

Priority Pollutant Compounds

Number	Compound	PQL ug/kg (dry)	Result ug/kg (dry)
1	Benzene	40	BQL
2	Bromodichloromethane	40	BQL
3	Bromoform	40	BQL
4	Bromomethane	80	BQL
5	Carbon tetrachloride	40	BQL
6	Chlorobenzene	40	BQL
7	Chloroethane	80	BQL
8	2-Chloroethylvinyl ether	40	BQL
9	Chloroform	40	BQL
10	Chloromethane	80	BQL
11	Dibromochloromethane	40	BQL
12	1,2-Dichlorobenzene	40	BQL
13	1,3-Dichlorobenzene	40	BQL
14	1,4-Dichlorobenzene	40	BQL
15	1,1-Dichloroethane	40	BQL
16	1,2-Dichloroethane	40	BQL
17	1,1-Dichloroethene	40	BQL
18	1,2-Dichloroethenes (Total)	40	BQL
19	1,2-Dichloropropane	40	BQL
20	cis-1,3-Dichloropropene	40	BQL
21	trans-1,3-Dichloropropene	40	BQL
22	Ethylbenzene	40	1,300
23	Methylene chloride	40	BQL
24	1,1,2,2-Tetrachloroethane	40	BQL
25	Tetrachloroethene	40	BQL
26	Toluene	40	BQL
27	1,1,1-Trichloroethane	40	BQL
28	1,1,2-Trichloroethane	40	BQL
29	Trichloroethene	40	BQL
30	Trichlorofluoromethane	40	BQL
31	Vinyl chloride	80	BQL

Doc# MSF11901.MA



IEA

An Aquarion Company

Analysis Report: EPA Method 8260A
(PAGE 2 OF 2 PAGES)

Client: Roy Bros., Inc.
Project: 8579

IEA ID: R128-005-02
Sample: TB-2 #1

Other TCL Compounds

Number	Compound	PQL ug/kg (dry)	Result ug/kg (dry)
32	Acetone	800	BQL
33	2-Butanone	800	BQL
34	n-Butylbenzene	40	BQL
35	s-Butylbenzene	40	BQL
36	t-Butylbenzene	40	BQL
37	Carbon disulfide	40	BQL
38	2-Chlorotoluene	40	BQL
39	4-Chlorotoluene	40	BQL
40	1,2-Dibromoethane	40	BQL
41	2-Hexanone	160	BQL
42	Hexachlorobutadiene	40	BQL
43	Isopropylbenzene	40	BQL
44	p-Isopropyltoluene	40	BQL
45	4-Methyl-2-pentanone	160	BQL
46	Methyl-t-butyl ether	40	BQL
47	Naphthalene	400	BQL
48	n-Propylbenzene	40	BQL
49	Styrene	40	BQL
50	1,1,1,2-Tetrachloroethane	40	BQL
51	1,2,3-Trichlorobenzene	40	BQL
52	1,2,4-Trichlorobenzene	40	BQL
53	1,2,4-Trimethylbenzene	40	91
54	1,3,5-Trimethylbenzene	40	BQL
55	Vinyl acetate	160	BQL
56	Xylenes (Total)	40	74

Surrogate Standard Recovery:

1,2-Dichloroethane-d4	96 %
Toluene-d8	97 %
Bromofluorobenzene	89 %

COMMENTS:

BQL = Below Quantitation Limit.

PQL = Practical Quantitation Limit.

Smaller amount of sample analyzed due to the high concentration of target compounds present.

Quantitation limit elevated due to smaller amount of sample analyzed.

Doc# MSF11901.MA



IEA

An Aquarion Company

Analysis Report: Extractable Petroleum Hydrocarbons by GC/FID EPA 8100 (Modified)

Client: Roy Bros., Inc.
Project: 8579
Report Date: 06/05/95
Collected: 05/18/95
Received: 05/19/95
Extracted: 05/26/95
Analyzed: 05/31/95
By: DB

IEA ID: R128-005-04
Sample: MW-6 #1
Type: Soil
Container: Glass

Dilution Factor: 1.2

Petroleum Product	Cn Range	Result mg/kg (dry)	PQL mg/kg (dry)	Fingerprint Match Quality
Kerosene (C7-C32)	---	BQL	24	---
Fuel Oil #2 (C8-C36)	---	BQL	24	---
Fuel Oil #6 (C8-C40)	---	BQL	120	---
Motor Oil (C14-C40)	---	BQL	120	---
Unknown	8-40	270	120	4

Match Quality Scale:

- 1 - Identical or nearly identical GC pattern.
- 2 - Similar GC pattern showing moderate differences.
- 3 - Significant difference in GC pattern.
- 4 - No agreement with GC patterns in target list. Quantitation based on petroleum product with similar Cn range.

Comments:

BQL = Below quantitation limit.

PQL = Practical quantitation limit.

Results for Coal Tar and Motor Oil based on chromatographable portions of petroleum product.

Cn range refers to the approximate chromatographic region covered by the specified petroleum product in straight-chain carbon units.

Doc# GCF00104.MA



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IEA

An Aquarion Company

Analysis Report: Extractable Petroleum Hydrocarbons by GC/FID
EPA 8100 (Modified)

Client: Roy Bros., Inc.
Project: 8579
Report Date: 06/05/95
Collected: 05/18/95
Received: 05/19/95
Extracted: 05/26/95
Analyzed: 05/31/95
By: DB

IEA ID: R128-005-05
Sample: MW-6 #3
Type: Soil
Container: Glass

Dilution Factor: 1

Petroleum Product	Cn Range	Result mg/kg (dry)	PQL mg/kg (dry)	Fingerprint Match Quality
Kerosene (C7-C32)	---	BQL	20	---
Fuel Oil #2 (C8-C36)	---	BQL	20	---
Fuel Oil #6 (C8-C40)	---	BQL	100	---
Motor Oil (C14-C40)	---	BQL	100	---
Unknown	8-40	150	100	4

Match Quality Scale:

- 1 - Identical or nearly identical GC pattern.
- 2 - Similar GC pattern showing moderate differences.
- 3 - Significant difference in GC pattern.
- 4 - No agreement with GC patterns in target list. Quantitation based on petroleum product with similar Cn range.

Comments:

BQL = Below quantitation limit.

PQL = Practical quantitation limit.

Results for Coal Tar and Motor Oil based on chromatographable portions of petroleum product.

Cn range refers to the approximate chromatographic region covered by the specified petroleum product in straight-chain carbon units.

Doc# GCF00104.MA



ANALYSIS ON RECOVERED OILS



IEA

An Aquarion Company

Analysis Report: Extractable Petroleum Hydrocarbons by GC/FID
EPA 8100 (Modified)

Client: Roy Bros., Inc.
Project: 8579
Report Date: 06/05/95
Collected: 05/18/95
Received: 05/19/95
Extracted: 05/26/95
Analyzed: 05/30/95
By: DB

IEA ID: R128-005-06
Sample: MW-7 #4A
Type: Soil
Container: Glass

Dilution Factor: 13

Petroleum Product	Cn Range	Result mg/kg (dry)	PQL mg/kg (dry)	Fingerprint Match Quality
Kerosene (C7-C32)	---	BQL	260	---
Fuel Oil #2 (C8-C36)	---	BQL	260	---
Fuel Oil #6 (C8-C40)	---	BQL	1300	---
Motor Oil (C14-C40)	---	BQL	1300	---
Unknown	8-40	12,000	1300	4

Match Quality Scale:

- 1 - Identical or nearly identical GC pattern.
- 2 - Similar GC pattern showing moderate differences.
- 3 - Significant difference in GC pattern.
- 4 - No agreement with GC patterns in target list. Quantitation based on petroleum product with similar Cn range.

Comments:

BQL = Below quantitation limit.

PQL = Practical quantitation limit.

Results for Coal Tar and Motor Oil based on chromatographable portions of petroleum product.

Cn range refers to the approximate chromatographic region covered by the specified petroleum product in straight-chain carbon units.

Doc# GCF00104.MA



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IEA

An Aquarion Company

Analysis Report: Extractable Petroleum Hydrocarbons by GC/FID
EPA 8100 (Modified)

Client: Roy Bros., Inc.
Project: 8579
Report Date: 06/05/95
Collected: 05/19/95
Received: 05/19/95
Extracted: 05/26/95
Analyzed: 05/31/95
By: DB

IEA ID: R128-005-07
Sample: E-2 #1, #2, #3
Type: Soil
Container: Glass

Dilution Factor: 11

Petroleum Product	Cn Range	Result mg/kg (dry)	PQL mg/kg (dry)	Fingerprint Match Quality
Kerosene (C7-C32)	---	BQL	220	---
Fuel Oil #2 (C8-C36)	---	BQL	220	---
Fuel Oil #6 (C8-C40)	---	BQL	1100	---
Motor Oil (C14-C40)	---	BQL	1100	---
Unknown	8-40	6,200	1100	4

Match Quality Scale:

- 1 - Identical or nearly identical GC pattern.
- 2 - Similar GC pattern showing moderate differences.
- 3 - Significant difference in GC pattern.
- 4 - No agreement with GC patterns in target list. Quantitation based on petroleum product with similar Cn range.

Comments:

BQL = Below quantitation limit.

PQL = Practical quantitation limit.

Results for Coal Tar and Motor Oil based on chromatographable portions of petroleum product.

Cn range refers to the approximate chromatographic region covered by the specified petroleum product in straight-chain carbon units.

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CONTROLLED DOCUMENT



IEA

An Aquarion Company

Analysis Report: Extractable Petroleum Hydrocarbons by GC/FID
EPA 8100 (Modified)

Client: Roy Bros., Inc.
Project: 8579
Report Date: 06/05/95
Collected: 05/19/95
Received: 05/19/95
Extracted: 05/26/95
Analyzed: 05/31/95
By: DB

IEA ID: R128-005-08
Sample: E-3 #2A
Type: Soil
Container: Glass

Dilution Factor: 1.1

Petroleum Product	Cn Range	Result mg/kg (dry)	PQL mg/kg (dry)	Fingerprint Match Quality
Kerosene (C7-C32)	---	BQL	22	---
Fuel Oil #2 (C8-C36)	---	BQL	22	---
Fuel Oil #6 (C8-C40)	---	BQL	110	---
Motor Oil (C14-C40)	---	BQL	110	---
Unknown	8-40	390	110	4

Match Quality Scale:

- 1 - Identical or nearly identical GC pattern.
- 2 - Similar GC pattern showing moderate differences.
- 3 - Significant difference in GC pattern.
- 4 - No agreement with GC patterns in target list. Quantitation based on petroleum product with similar Cn range.

Comments:

BQL = Below quantitation limit.
PQL = Practical quantitation limit.
Results for Coal Tar and Motor Oil based on chromatographable portions of petroleum product.
Cn range refers to the approximate chromatographic region covered by the specified petroleum product in straight-chain carbon units.

Doc# GCF00104.MA



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IEA

An Aquarion Company

Analysis Report: Extractable Petroleum Hydrocarbons by GC/FID
EPA 8100 (Modified)

Client: Roy Bros., Inc.
Project: 8579
Report Date: 06/05/95
Collected: 05/19/95
Received: 05/19/95
Extracted: 05/26/95
Analyzed: 05/31/95
By: DB

IEA ID: R128-005-09
Sample: E-4 #3B
Type: Soil
Container: Glass

Dilution Factor: 1.2

Petroleum Product	Cn Range	Result mg/kg (dry)	PQL mg/kg (dry)	Fingerprint Match Quality
Kerosene (C7-C32)	---	BQL	24	---
Fuel Oil #2 (C8-C36)	---	BQL	24	---
Fuel Oil #6 (C8-C40)	---	BQL	120	---
Motor Oil (C14-C40)	---	BQL	120	---
Unknown	8-40	360	120	4

Match Quality Scale:

- 1 - Identical or nearly identical GC pattern.
- 2 - Similar GC pattern showing moderate differences.
- 3 - Significant difference in GC pattern.
- 4 - No agreement with GC patterns in target list. Quantitation based on petroleum product with similar Cn range.

Comments:

BQL = Below quantitation limit.

PQL = Practical quantitation limit.

Results for Coal Tar and Motor Oil based on chromatographable portions of petroleum product.

Cn range refers to the approximate chromatographic region covered by the specified petroleum product in straight-chain carbon units.

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IEA

An Aquarion Company

Analysis Report: Extractable Petroleum Hydrocarbons by GC/FID EPA 8100 (Modified)

Client: Roy Bros., Inc.
Project: 8579
Report Date: 06/05/95
Collected: 05/19/95
Received: 05/19/95
Extracted: 05/26/95
Analyzed: 06/01/95
By: DB

IEA ID: R128-005-10
Sample: E-5 #1, #2
Type: Soil
Container: Glass

Dilution Factor: 11

Petroleum Product	Cn Range	Result mg/kg (dry)	PQL mg/kg (dry)	Fingerprint Match Quality
Kerosene (C7-C32)	---	BQL	220	---
Fuel Oil #2 (C8-C36)	---	BQL	220	---
Fuel Oil #6 (C8-C40)	---	BQL	1100	---
Motor Oil (C14-C40)	---	BQL	1100	---
Unknown	16-40	2,600	1100	4

Match Quality Scale:

- 1 - Identical or nearly identical GC pattern.
- 2 - Similar GC pattern showing moderate differences.
- 3 - Significant difference in GC pattern.
- 4 - No agreement with GC patterns in target list. Quantitation based on petroleum product with similar Cn range.

Comments:

BQL = Below quantitation limit.

PQL = Practical quantitation limit.

Results for Coal Tar and Motor Oil based on chromatographable portions of petroleum product.

Cn range refers to the approximate chromatographic region covered by the specified petroleum product in straight-chain carbon units.

Doc# GCF00104.MA



QUANTITATION BASED ON PQL

**IEA**

An Aquarion Company

Analysis Report: EPA Method 8260A
(PAGE 1 OF 2 PAGES)

Client: Roy Bros., Inc.
Project: 8579
Report Date: 06/05/95
Collected: 05/18/95
Received: 05/19/95
Analyzed: 05/26/95
By: GMT

IEA ID: R128-005-03
Sample: TB-1 #1
Type: Soil
Container: Glass

Dilution Factor: 1

Priority Pollutant Compounds

Number	Compound	PQL ug/kg (dry)	Result ug/kg (dry)
1	Benzene	5	BQL
2	Bromodichloromethane	5	BQL
3	Bromoform	5	BQL
4	Bromomethane	10	BQL
5	Carbon tetrachloride	5	BQL
6	Chlorobenzene	5	BQL
7	Chloroethane	10	BQL
8	2-Chloroethylvinyl ether	5	BQL
9	Chloroform	5	BQL
10	Chloromethane	10	BQL
11	Dibromochloromethane	5	BQL
12	1,2-Dichlorobenzene	5	BQL
13	1,3-Dichlorobenzene	5	BQL
14	1,4-Dichlorobenzene	5	BQL
15	1,1-Dichloroethane	5	BQL
16	1,2-Dichloroethane	5	BQL
17	1,1-Dichloroethene	5	BQL
18	1,2-Dichloroethenes (Total)	5	BQL
19	1,2-Dichloropropane	5	BQL
20	cis-1,3-Dichloropropene	5	BQL
21	trans-1,3-Dichloropropene	5	BQL
22	Ethylbenzene	5	BQL
23	Methylene chloride	5	5B
24	1,1,2,2-Tetrachloroethane	5	BQL
25	Tetrachloroethene	5	13
26	Toluene	5	BQL
27	1,1,1-Trichloroethane	5	BQL
28	1,1,2-Trichloroethane	5	BQL
29	Trichloroethene	5	BQL
30	Trichlorofluoromethane	5	7
31	Vinyl chloride	10	BQL

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UNION OF AMERICAN STATES

**IEA**

An Aquarion Company

Analysis Report: EPA Method 8260A
(PAGE 2 OF 2 PAGES)Client: Roy Bros., Inc.
Project: 8579IEA ID: R128-005-03
Sample: TB-1 #1

Other TCL Compounds

Number	Compound	PQL ug/kg (dry)	Result ug/kg (dry)
32	Acetone	100	BQL
33	2-Butanone	100	BQL
34	n-Butylbenzene	5	BQL
35	s-Butylbenzene	5	BQL
36	t-Butylbenzene	5	BQL
37	Carbon disulfide	5	BQL
38	2-Chlorotoluene	5	BQL
39	4-Chlorotoluene	5	BQL
40	1,2-Dibromoethane	5	BQL
41	2-Hexanone	20	BQL
42	Hexachlorobutadiene	5	BQL
43	Isopropylbenzene	5	BQL
44	p-Isopropyltoluene	5	BQL
45	4-Methyl-2-pentanone	20	BQL
46	Methyl-t-butyl ether	5	BQL
47	Naphthalene	50	BQL
48	n-Propylbenzene	5	BQL
49	Styrene	5	BQL
50	1,1,1,2-Tetrachloroethane	5	BQL
51	1,2,3-Trichlorobenzene	5	BQL
52	1,2,4-Trichlorobenzene	5	BQL
53	1,2,4-Trimethylbenzene	5	BQL
54	1,3,5-Trimethylbenzene	5	BQL
55	Vinyl acetate	20	BQL
56	Xylenes (Total)	5	BQL

Surrogate Standard Recovery:

1,2-Dichloroethane-d4	101 %
Toluene-d8	98 %
Bromofluorobenzene	76 %

COMMENTS:

BQL = Below Quantitation Limit.
PQL = Practical Quantitation Limit.
B = Compound in blank

Doc# MSF11901.MA



**IEA**

An Aquarion Company

Analysis Report: EPA Method 8260A
(PAGE 1 OF 2 PAGES)

Client: Roy Bros., Inc.
Project: 8579
Report Date: 06/05/95
Collected: 05/18/95
Received: 05/19/95
Analyzed: 05/26/95
By: GMT

IEA ID: R128-005-04
Sample: MW-6 #1
Type: Soil
Container: Glass

Dilution Factor: 1.1

Priority Pollutant Compounds

Number	Compound	PQL ug/kg (dry)	Result ug/kg (dry)
1	Benzene	6	BQL
2	Bromodichloromethane	6	BQL
3	Bromoform	6	BQL
4	Bromomethane	11	BQL
5	Carbon tetrachloride	6	BQL
6	Chlorobenzene	6	BQL
7	Chloroethane	11	BQL
8	2-Chloroethylvinyl ether	6	BQL
9	Chloroform	6	BQL
10	Chloromethane	11	BQL
11	Dibromochloromethane	6	BQL
12	1,2-Dichlorobenzene	6	BQL
13	1,3-Dichlorobenzene	6	BQL
14	1,4-Dichlorobenzene	6	BQL
15	1,1-Dichloroethane	6	BQL
16	1,2-Dichloroethane	6	BQL
17	1,1-Dichloroethene	6	BQL
18	1,2-Dichloroethenes (Total)	6	BQL
19	1,2-Dichloropropane	6	BQL
20	cis-1,3-Dichloropropene	6	BQL
21	trans-1,3-Dichloropropene	6	BQL
22	Ethylbenzene	6	BQL
23	Methylene chloride	6	BQL
24	1,1,2,2-Tetrachloroethane	6	BQL
25	Tetrachloroethene	6	BQL
26	Toluene	6	BQL
27	1,1,1-Trichloroethane	6	BQL
28	1,1,2-Trichloroethane	6	BQL
29	Trichloroethene	6	BQL
30	Trichlorofluoromethane	6	BQL
31	Vinyl chloride	11	BQL

Doc# MSF11901.MA



EPA/600/R-92/010-1-10000

**IEA**

An Aquarion Company

Analysis Report: EPA Method 8260A
(PAGE 2 OF 2 PAGES)Client: Roy Bros., Inc.
Project: 8579IEA ID: R128-005-04
Sample: MW-6 #1

Other TCL Compounds

Number	Compound	PQL ug/kg (dry)	Result ug/kg (dry)
32	Acetone	110	BQL
33	2-Butanone	110	BQL
34	n-Butylbenzene	6	BQL
35	s-Butylbenzene	6	BQL
36	t-Butylbenzene	6	BQL
37	Carbon disulfide	6	BQL
38	2-Chlorotoluene	6	BQL
39	4-Chlorotoluene	6	BQL
40	1,2-Dibromoethane	6	BQL
41	2-Hexanone	22	BQL
42	Hexachlorobutadiene	6	BQL
43	Isopropylbenzene	6	BQL
44	p-Isopropyltoluene	6	BQL
45	4-Methyl-2-pentanone	22	BQL
46	Methyl-t-butyl ether	6	BQL
47	Naphthalene	55	BQL
48	n-Propylbenzene	6	BQL
49	Styrene	6	BQL
50	1,1,1,2-Tetrachloroethane	6	BQL
51	1,2,3-Trichlorobenzene	6	BQL
52	1,2,4-Trichlorobenzene	6	BQL
53	1,2,4-Trimethylbenzene	6	BQL
54	1,3,5-Trimethylbenzene	6	BQL
55	Vinyl acetate	22	BQL
56	Xylenes (Total)	6	BQL

Surrogate Standard Recovery:

1,2-Dichloroethane-d4	104 %
Toluene-d8	109 %
Bromofluorobenzene	95 %

COMMENTS:

BQL = Below Quantitation Limit.
PQL = Practical Quantitation Limit.

Doc# MSF11901.MA



OPTIONAL CHROMATOGRAPHY

**IEA**

An Aquarion Company

Analysis Report: EPA Method 8260A
(PAGE 1 OF 2 PAGES)

Client: Roy Bros., Inc.
Project: 8579
Report Date: 06/05/95
Collected: 05/18/95
Received: 05/19/95
Analyzed: 05/30/95
By: GMT

IEA ID: R128-005-05
Sample: MW-6 #3
Type: Soil
Container: Glass

Dilution Factor: 1.1

Priority Pollutant Compounds

Number	Compound	PQL ug/kg (dry)	Result ug/kg (dry)
1	Benzene	6	BQL
2	Bromodichloromethane	6	BQL
3	Bromoform	6	BQL
4	Bromomethane	11	BQL
5	Carbon tetrachloride	6	BQL
6	Chlorobenzene	6	BQL
7	Chloroethane	11	BQL
8	2-Chloroethylvinyl ether	6	BQL
9	Chloroform	6	BQL
10	Chloromethane	11	BQL
11	Dibromochloromethane	6	BQL
12	1,2-Dichlorobenzene	6	BQL
13	1,3-Dichlorobenzene	6	BQL
14	1,4-Dichlorobenzene	6	BQL
15	1,1-Dichloroethane	6	BQL
16	1,2-Dichloroethane	6	BQL
17	1,1-Dichloroethene	6	BQL
18	1,2-Dichloroethenes (Total)	6	BQL
19	1,2-Dichloropropane	6	BQL
20	cis-1,3-Dichloropropene	6	BQL
21	trans-1,3-Dichloropropene	6	BQL
22	Ethylbenzene	6	BQL
23	Methylene chloride	6	7B
24	1,1,2,2-Tetrachloroethane	6	BQL
25	Tetrachloroethene	6	BQL
26	Toluene	6	BQL
27	1,1,1-Trichloroethane	6	BQL
28	1,1,2-Trichloroethane	6	BQL
29	Trichloroethene	6	BQL
30	Trichlorofluoromethane	6	BQL
31	Vinyl chloride	11	BQL

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**IEA**

An Aquarion Company

Analysis Report: EPA Method 8260A
(PAGE 2 OF 2 PAGES)Client: Roy Bros., Inc.
Project: 8579IEA ID: R128-005-05
Sample: MW-6 #3

Other TCL Compounds

Number	Compound	PQL ug/kg (dry)	Result ug/kg (dry)
32	Acetone	110	BQL
33	2-Butanone	110	BQL
34	n-Butylbenzene	6	BQL
35	s-Butylbenzene	6	BQL
36	t-Butylbenzene	6	BQL
37	Carbon disulfide	6	BQL
38	2-Chlorotoluene	6	BQL
39	4-Chlorotoluene	6	BQL
40	1,2-Dibromoethane	6	BQL
41	2-Hexanone	22	BQL
42	Hexachlorobutadiene	6	BQL
43	Isopropylbenzene	6	BQL
44	p-Isopropyltoluene	6	BQL
45	4-Methyl-2-pentanone	22	BQL
46	Methyl-t-butyl ether	6	BQL
47	Naphthalene	55	BQL
48	n-Propylbenzene	6	BQL
49	Styrene	6	BQL
50	1,1,1,2-Tetrachloroethane	6	BQL
51	1,2,3-Trichlorobenzene	6	BQL
52	1,2,4-Trichlorobenzene	6	BQL
53	1,2,4-Trimethylbenzene	6	BQL
54	1,3,5-Trimethylbenzene	6	BQL
55	Vinyl acetate	22	BQL
56	Xylenes (Total)	6	7

Surrogate Standard Recovery:

1,2-Dichloroethane-d4	90 %
Toluene-d8	90 %
Bromofluorobenzene	101 %

COMMENTS:

BQL = Below Quantitation Limit.
PQL = Practical Quantitation Limit.
B = Compound in blank

Doc# MSF11901.MA



UNIVERSITY MICROFILMS



IEA

An Aquarion Company

Analysis Report: EPA Method 8260A
(PAGE 1 OF 2 PAGES)

Client: Roy Bros., Inc.
Project: 8579
Report Date: 06/05/95
Collected: 05/18/95
Received: 05/19/95
Analyzed: 05/30/95
By: GMT

IEA ID: R128-005-06
Sample: MW-7 #4A
Type: Soil
Container: Glass

Dilution Factor: 5.1

Priority Pollutant Compounds

Number	Compound	PQL ug/kg (dry)	Result ug/kg (dry)
1	Benzene	26	380
2	Bromodichloromethane	26	BQL
3	Bromoform	26	BQL
4	Bromomethane	51	BQL
5	Carbon tetrachloride	26	BQL
6	Chlorobenzene	26	730
7	Chloroethane	51	BQL
8	2-Chloroethylvinyl ether	26	BQL
9	Chloroform	26	BQL
10	Chloromethane	51	BQL
11	Dibromochloromethane	26	BQL
12	1,2-Dichlorobenzene	26	260
13	1,3-Dichlorobenzene	26	BQL
14	1,4-Dichlorobenzene	26	76
15	1,1-Dichloroethane	26	BQL
16	1,2-Dichloroethane	26	BQL
17	1,1-Dichloroethene	26	BQL
18	1,2-Dichloroethenes (Total)	26	BQL
19	1,2-Dichloropropane	26	BQL
20	cis-1,3-Dichloropropene	26	BQL
21	trans-1,3-Dichloropropene	26	BQL
22	Ethylbenzene	26	240
23	Methylene chloride	26	45B
24	1,1,2,2-Tetrachloroethane	26	BQL
25	Tetrachloroethene	26	BQL
26	Toluene	26	BQL
27	1,1,1-Trichloroethane	26	BQL
28	1,1,2-Trichloroethane	26	BQL
29	Trichloroethene	26	BQL
30	Trichlorofluoromethane	26	BQL
31	Vinyl chloride	51	BQL

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**IEA**

An Aquarion Company

Analysis Report: EPA Method 8260A
(PAGE 2 OF 2 PAGES)Client: Roy Bros., Inc.
Project: 8579IEA ID: R128-005-06
Sample: MW-7 #4A

Other TCL Compounds

Number	Compound	PQL ug/kg (dry)	Result ug/kg (dry)
32	Acetone	510	BQL
33	2-Butanone	510	BQL
34	n-Butylbenzene	26	150
35	s-Butylbenzene	26	46
36	t-Butylbenzene	26	130
37	Carbon disulfide	26	BQL
38	2-Chlorotoluene	26	BQL
39	4-Chlorotoluene	26	BQL
40	1,2-Dibromoethane	26	BQL
41	2-Hexanone	102	BQL
42	Hexachlorobutadiene	26	BQL
43	Isopropylbenzene	26	70
44	p-Isopropyltoluene	26	1,200
45	4-Methyl-2-pentanone	102	BQL
46	Methyl-t-butyl ether	26	BQL
47	Naphthalene	255	BQL
48	n-Propylbenzene	26	BQL
49	Styrene	26	BQL
50	1,1,1,2-Tetrachloroethane	26	BQL
51	1,2,3-Trichlorobenzene	26	BQL
52	1,2,4-Trichlorobenzene	26	BQL
53	1,2,4-Trimethylbenzene	26	1,000
54	1,3,5-Trimethylbenzene	26	300
55	Vinyl acetate	102	BQL
56	Xylenes (Total)	26	950

Surrogate Standard Recovery:

1,2-Dichloroethane-d4	94 %
Toluene-d8	94 %
Bromofluorobenzene	85 %

COMMENTS:

BQL = Below Quantitation Limit.

PQL = Practical Quantitation Limit.

Smaller amount of sample analyzed due to the high concentration of target compounds present.

Quantitation limit elevated due to smaller amount of sample analyzed.

B = Compound in blank

Doc# MSF11901.MA



SUNBELT LABORATORY

**IEA**

An Aquarion Company

Analysis Report: EPA Method 8260A
(PAGE 1 OF 2 PAGES)

Client: Roy Bros., Inc.
Project: 8579
Report Date: 06/05/95
Collected: 05/19/95
Received: 05/19/95
Analyzed: 05/30/95
By: GMT

IEA ID: R128-005-07
Sample: E-2 #1, #2, #3
Type: Soil
Container: Glass

Dilution Factor: 170

Priority Pollutant Compounds

Number	Compound	PQL ug/kg (dry)	Result ug/kg (dry)
1	Benzene	850	BQL
2	Bromodichloromethane	850	BQL
3	Bromoform	850	BQL
4	Bromomethane	1700	BQL
5	Carbon tetrachloride	850	BQL
6	Chlorobenzene	850	BQL
7	Chloroethane	1700	BQL
8	2-Chloroethylvinyl ether	850	BQL
9	Chloroform	850	BQL
10	Chloromethane	1700	BQL
11	Dibromochloromethane	850	BQL
12	1,2-Dichlorobenzene	850	BQL
13	1,3-Dichlorobenzene	850	BQL
14	1,4-Dichlorobenzene	850	BQL
15	1,1-Dichloroethane	850	BQL
16	1,2-Dichloroethane	850	BQL
17	1,1-Dichloroethene	850	BQL
18	1,2-Dichloroethenes (Total)	850	BQL
19	1,2-Dichloropropane	850	BQL
20	cis-1,3-Dichloropropene	850	BQL
21	trans-1,3-Dichloropropene	850	BQL
22	Ethylbenzene	850	35,000
23	Methylene chloride	850	BQL
24	1,1,2,2-Tetrachloroethane	850	BQL
25	Tetrachloroethene	850	BQL
26	Toluene	850	BQL
27	1,1,1-Trichloroethane	850	BQL
28	1,1,2-Trichloroethane	850	BQL
29	Trichloroethene	850	BQL
30	Trichlorofluoromethane	850	BQL
31	Vinyl chloride	1700	BQL

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**IEA**

An Aquarion Company

Analysis Report: EPA Method 8260A
(PAGE 2 OF 2 PAGES)Client: Roy Bros., Inc.
Project: 8579IEA ID: R128-005-07
Sample: E-2 #1, #2, #3

Other TCL Compounds

Number	Compound	PQL ug/kg (dry)	Result ug/kg (dry)
32	Acetone	17000	BQL
33	2-Butanone	17000	BQL
34	n-Butylbenzene	850	BQL
35	s-Butylbenzene	850	BQL
36	t-Butylbenzene	850	BQL
37	Carbon disulfide	850	BQL
38	2-Chlorotoluene	850	BQL
39	4-Chlorotoluene	850	BQL
40	1,2-Dibromoethane	850	BQL
41	2-Hexanone	3400	BQL
42	Hexachlorobutadiene	850	BQL
43	Isopropylbenzene	850	BQL
44	p-Isopropyltoluene	850	BQL
45	4-Methyl-2-pentanone	3400	BQL
46	Methyl-t-butyl ether	850	BQL
47	Naphthalene	8500	BQL
48	n-Propylbenzene	850	BQL
49	Styrene	850	BQL
50	1,1,1,2-Tetrachloroethane	850	BQL
51	1,2,3-Trichlorobenzene	850	BQL
52	1,2,4-Trichlorobenzene	850	BQL
53	1,2,4-Trimethylbenzene	850	1,200
54	1,3,5-Trimethylbenzene	850	BQL
55	Vinyl acetate	3400	BQL
56	Xylenes (Total)	850	4,200

Surrogate Standard Recovery:

1,2-Dichloroethane-d4	98 %
Toluene-d8	103 %
Bromofluorobenzene	93 %

COMMENTS:

BQL = Below Quantitation Limit.

PQL = Practical Quantitation Limit.

Smaller amount of sample analyzed due to the high concentration
of target compounds present.

Quantitation limit elevated due to smaller amount of sample analyzed.

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**IEA**

An Aquarion Company

Analysis Report: EPA Method 8260A
(PAGE 1 OF 2 PAGES)

Client: Roy Bros., Inc.
Project: 8579
Report Date: 06/05/95
Collected: 05/19/95
Received: 05/19/95
Analyzed: 05/30/95
By: GMT

IEA ID: R128-005-09
Sample: E-4 #3B
Type: Soil
Container: Glass

Dilution Factor: 5.2

Priority Pollutant Compounds

Number	Compound	PQL ug/kg (dry)	Result ug/kg (dry)
1	Benzene	26	BQL
2	Bromodichloromethane	26	BQL
3	Bromoform	26	BQL
4	Bromomethane	52	BQL
5	Carbon tetrachloride	26	BQL
6	Chlorobenzene	26	BQL
7	Chloroethane	52	BQL
8	2-Chloroethylvinyl ether	26	BQL
9	Chloroform	26	BQL
10	Chloromethane	52	BQL
11	Dibromochloromethane	26	BQL
12	1,2-Dichlorobenzene	26	110
13	1,3-Dichlorobenzene	26	BQL
14	1,4-Dichlorobenzene	26	35
15	1,1-Dichloroethane	26	BQL
16	1,2-Dichloroethane	26	BQL
17	1,1-Dichloroethene	26	BQL
18	1,2-Dichloroethenes (Total)	26	BQL
19	1,2-Dichloropropane	26	BQL
20	cis-1,3-Dichloropropene	26	BQL
21	trans-1,3-Dichloropropene	26	BQL
22	Ethylbenzene	26	250
23	Methylene chloride	26	26B
24	1,1,2,2-Tetrachloroethane	26	BQL
25	Tetrachloroethene	26	BQL
26	Toluene	26	BQL
27	1,1,1-Trichloroethane	26	BQL
28	1,1,2-Trichloroethane	26	BQL
29	Trichloroethene	26	BQL
30	Trichlorofluoromethane	26	BQL
31	Vinyl chloride	52	BQL

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**IEA**

An Aquarion Company

Analysis Report: EPA Method 8260A
(PAGE 2 OF 2 PAGES)Client: Roy Bros., Inc.
Project: 8579IEA ID: R128-005-09
Sample: E-4 #3B

Other TCL Compounds

Number	Compound	PQL ug/kg (dry)	Result ug/kg (dry)
32	Acetone	520	BQL
33	2-Butanone	520	BQL
34	n-Butylbenzene	26	BQL
35	s-Butylbenzene	26	BQL
36	t-Butylbenzene	26	BQL
37	Carbon disulfide	26	BQL
38	2-Chlorotoluene	26	BQL
39	4-Chlorotoluene	26	BQL
40	1,2-Dibromoethane	26	BQL
41	2-Hexanone	104	BQL
42	Hexachlorobutadiene	26	BQL
43	Isopropylbenzene	26	BQL
44	p-Isopropyltoluene	26	69
45	4-Methyl-2-pentanone	104	BQL
46	Methyl-t-butyl ether	26	BQL
47	Naphthalene	260	BQL
48	n-Propylbenzene	26	BQL
49	Styrene	26	BQL
50	1,1,1,2-Tetrachloroethane	26	BQL
51	1,2,3-Trichlorobenzene	26	BQL
52	1,2,4-Trichlorobenzene	26	BQL
53	1,2,4-Trimethylbenzene	26	96
54	1,3,5-Trimethylbenzene	26	32
55	Vinyl acetate	104	BQL
56	Xylenes (Total)	26	410

Surrogate Standard Recovery:

1,2-Dichloroethane-d4	92 %
Toluene-d8	100 %
Bromofluorobenzene	79 %

COMMENTS:

BQL = Below Quantitation Limit.

PQL = Practical Quantitation Limit.

Smaller amount of sample analyzed due to the high concentration of target compounds present.

Quantitation limit elevated due to smaller amount of sample analyzed.

B = Compound in blank

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**IEA**

An Aquarion Company

Analysis Report: EPA Method 8260A
(PAGE 1 OF 2 PAGES)

Client: Roy Bros., Inc.
Project: 8579
Report Date: 06/05/95
Collected: 05/19/95
Received: 05/19/95
Analyzed: 05/30/95
By: GMT

IEA ID: R128-005-10
Sample: E-5 #1, #2
Type: Soil
Container: Glass

Dilution Factor: 110

Priority Pollutant Compounds

Number	Compound	PQL ug/kg (dry)	Result ug/kg (dry)
1	Benzene	550	BQL
2	Bromodichloromethane	550	BQL
3	Bromoform	550	BQL
4	Bromomethane	1100	BQL
5	Carbon tetrachloride	550	BQL
6	Chlorobenzene	550	BQL
7	Chloroethane	1100	BQL
8	2-Chloroethylvinyl ether	550	BQL
9	Chloroform	550	BQL
10	Chloromethane	1100	BQL
11	Dibromochloromethane	550	BQL
12	1,2-Dichlorobenzene	550	BQL
13	1,3-Dichlorobenzene	550	BQL
14	1,4-Dichlorobenzene	550	BQL
15	1,1-Dichloroethane	550	BQL
16	1,2-Dichloroethane	550	BQL
17	1,1-Dichloroethene	550	BQL
18	1,2-Dichloroethenes (Total)	550	BQL
19	1,2-Dichloropropane	550	BQL
20	cis-1,3-Dichloropropene	550	BQL
21	trans-1,3-Dichloropropene	550	BQL
22	Ethylbenzene	550	6,600
23	Methylene chloride	550	BQL
24	1,1,2,2-Tetrachloroethane	550	BQL
25	Tetrachloroethene	550	BQL
26	Toluene	550	BQL
27	1,1,1-Trichloroethane	550	BQL
28	1,1,2-Trichloroethane	550	BQL
29	Trichloroethene	550	BQL
30	Trichlorofluoromethane	550	BQL
31	Vinyl chloride	1100	BQL

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L00103 00 (REVISED 08/90)



IEA

An Aquarion Company

Analysis Report: EPA Method 8260A
(PAGE 2 OF 2 PAGES)

Client: Roy Bros., Inc.
Project: 8579

IEA ID: R128-005-10
Sample: E-5 #1, #2

Other TCL Compounds

Number	Compound	PQL ug/kg (dry)	Result ug/kg (dry)
32	Acetone	11000	BQL
33	2-Butanone	11000	BQL
34	n-Butylbenzene	550	BQL
35	s-Butylbenzene	550	BQL
36	t-Butylbenzene	550	BQL
37	Carbon disulfide	550	BQL
38	2-Chlorotoluene	550	BQL
39	4-Chlorotoluene	550	BQL
40	1,2-Dibromoethane	550	BQL
41	2-Hexanone	2200	BQL
42	Hexachlorobutadiene	550	BQL
43	Isopropylbenzene	550	1,100
44	p-Isopropyltoluene	550	BQL
45	4-Methyl-2-pentanone	2200	BQL
46	Methyl-t-butyl ether	550	BQL
47	Naphthalene	5500	BQL
48	n-Propylbenzene	550	BQL
49	Styrene	550	5,100
50	1,1,1,2-Tetrachloroethane	550	BQL
51	1,2,3-Trichlorobenzene	550	BQL
52	1,2,4-Trichlorobenzene	550	BQL
53	1,2,4-Trimethylbenzene	550	BQL
54	1,3,5-Trimethylbenzene	550	BQL
55	Vinyl acetate	2200	BQL
56	Xylenes (Total)	550	BQL

Surrogate Standard Recovery:

1,2-Dichloroethane-d4	98 %
Toluene-d8	106 %
Bromofluorobenzene	94 %

COMMENTS:

BQL = Below Quantitation Limit.

PQL = Practical Quantitation Limit.

Smaller amount of sample analyzed due to the high concentration of target compounds present.

Quantitation limit elevated due to smaller amount of sample analyzed.

Doc# MSF11901.MA



QUALITY ASSURANCE DIVISION

**IEA**

An Aquarion Company

Analysis Report: EPA Method 8260A
(PAGE 1 OF 2 PAGES).

Client:
Project:
Report Date: 06/05/95
Collected:
Received:
Analyzed: 05/30/95
By: GMT

IEA ID: Method Blank (05/30)
Sample:
Type: Soil
Container:

Dilution Factor: 1

Priority Pollutant Compounds

Number	Compound	PQL ug/kg (dry)	Result ug/kg (dry)
1	Benzene	5	BQL
2	Bromodichloromethane	5	BQL
3	Bromoform	5	BQL
4	Bromomethane	10	BQL
5	Carbon tetrachloride	5	BQL
6	Chlorobenzene	5	BQL
7	Chloroethane	10	BQL
8	2-Chloroethylvinyl ether	5	BQL
9	Chloroform	5	BQL
10	Chloromethane	10	BQL
11	Dibromochloromethane	5	BQL
12	1,2-Dichlorobenzene	5	BQL
13	1,3-Dichlorobenzene	5	BQL
14	1,4-Dichlorobenzene	5	BQL
15	1,1-Dichloroethane	5	BQL
16	1,2-Dichloroethane	5	BQL
17	1,1-Dichloroethene	5	BQL
18	1,2-Dichloroethenes (Total)	5	BQL
19	1,2-Dichloropropane	5	BQL
20	cis-1,3-Dichloropropene	5	BQL
21	trans-1,3-Dichloropropene	5	BQL
22	Ethylbenzene	5	BQL
23	Methylene chloride	5	4J
24	1,1,2,2-Tetrachloroethane	5	BQL
25	Tetrachloroethene	5	BQL
26	Toluene	5	BQL
27	1,1,1-Trichloroethane	5	BQL
28	1,1,2-Trichloroethane	5	BQL
29	Trichloroethene	5	BQL
30	Trichlorofluoromethane	5	BQL
31	Vinyl chloride	10	BQL

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IEA

An Aquarion Company

Analysis Report: EPA Method 8260A
(PAGE 2 OF 2 PAGES)

Client:
Project:

IEA ID: Method Blank (05/30)
Sample:

Other TCL Compounds

Number	Compound	PQL ug/kg (dry)	Result ug/kg (dry)
32	Acetone	100	BQL
33	2-Butanone	100	BQL
34	n-Butylbenzene	5	BQL
35	s-Butylbenzene	5	BQL
36	t-Butylbenzene	5	BQL
37	Carbon disulfide	5	BQL
38	2-Chlorotoluene	5	BQL
39	4-Chlorotoluene	5	BQL
40	1,2-Dibromoethane	5	BQL
41	2-Hexanone	20	BQL
42	Hexachlorobutadiene	5	BQL
43	Isopropylbenzene	5	BQL
44	p-Isopropyltoluene	5	BQL
45	4-Methyl-2-pentanone	20	BQL
46	Methyl-t-butyl ether	5	BQL
47	Naphthalene	50	BQL
48	n-Propylbenzene	5	BQL
49	Styrene	5	BQL
50	1,1,1,2-Tetrachloroethane	5	BQL
51	1,2,3-Trichlorobenzene	5	BQL
52	1,2,4-Trichlorobenzene	5	BQL
53	1,2,4-Trimethylbenzene	5	BQL
54	1,3,5-Trimethylbenzene	5	BQL
55	Vinyl acetate	20	BQL
56	Xylenes (Total)	5	BQL

Surrogate Standard Recovery:
1,2-Dichloroethane-d4
Toluene-d8
Bromofluorobenzene

101 %
101 %
99 %

COMMENTS:

BQL = Below Quantitation Limit.

PQL = Practical Quantitation Limit.

J = Approximate result. Quantitation below calibration.

Corresponding Samples: R128-005-05, R118-005-06, R118-005-09

Doc# MSF11901.MA



2005-05-09 14:00:00



IEA

An Aquarion Company

Analysis Report: EPA Method 8260A
(PAGE 1 OF 2 PAGES)

Client:
Project:
Report Date: 06/05/95
Collected:
Received:
Analyzed: 05/26/95
By: GMT

IEA ID: Method Blank (05/26)
Sample:
Type: Soil
Container:

Dilution Factor: 1

Priority Pollutant Compounds

Number	Compound	PQL ug/kg (dry)	Result ug/kg (dry)
1	Benzene	5	BQL
2	Bromodichloromethane	5	BQL
3	Bromoform	5	BQL
4	Bromomethane	10	BQL
5	Carbon tetrachloride	5	BQL
6	Chlorobenzene	5	BQL
7	Chloroethane	10	BQL
8	2-Chloroethylvinyl ether	5	BQL
9	Chloroform	5	BQL
10	Chloromethane	10	BQL
11	Dibromochloromethane	5	BQL
12	1,2-Dichlorobenzene	5	BQL
13	1,3-Dichlorobenzene	5	BQL
14	1,4-Dichlorobenzene	5	BQL
15	1,1-Dichloroethane	5	BQL
16	1,2-Dichloroethane	5	BQL
17	1,1-Dichloroethene	5	BQL
18	1,2-Dichloroethenes (Total)	5	BQL
19	1,2-Dichloropropane	5	BQL
20	cis-1,3-Dichloropropene	5	BQL
21	trans-1,3-Dichloropropene	5	BQL
22	Ethylbenzene	5	BQL
23	Methylene chloride	5	3J
24	1,1,2,2-Tetrachloroethane	5	BQL
25	Tetrachloroethene	5	BQL
26	Toluene	5	BQL
27	1,1,1-Trichloroethane	5	BQL
28	1,1,2-Trichloroethane	5	BQL
29	Trichloroethene	5	BQL
30	Trichlorofluoromethane	5	BQL
31	Vinyl chloride	10	BQL

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**IEA**

An Aquarion Company

Analysis Report: EPA Method 8260A
(PAGE 2 OF 2 PAGES)Client:
Project:IEA ID: Method Blank (05/26)
Sample:

Other TCL Compounds

Number	Compound	PQL ug/kg (dry)	Result ug/kg (dry)
32	Acetone	100	BQL
33	2-Butanone	100	BQL
34	n-Butylbenzene	5	BQL
35	s-Butylbenzene	5	BQL
36	t-Butylbenzene	5	BQL
37	Carbon disulfide	5	BQL
38	2-Chlorotoluene	5	BQL
39	4-Chlorotoluene	5	BQL
40	1,2-Dibromoethane	5	BQL
41	2-Hexanone	20	BQL
42	Hexachlorobutadiene	5	BQL
43	Isopropylbenzene	5	BQL
44	p-Isopropyltoluene	5	BQL
45	4-Methyl-2-pentanone	20	BQL
46	Methyl-t-butyl ether	5	BQL
47	Naphthalene	50	BQL
48	n-Propylbenzene	5	BQL
49	Styrene	5	BQL
50	1,1,1,2-Tetrachloroethane	5	BQL
51	1,2,3-Trichlorobenzene	5	BQL
52	1,2,4-Trichlorobenzene	5	BQL
53	1,2,4-Trimethylbenzene	5	BQL
54	1,3,5-Trimethylbenzene	5	BQL
55	Vinyl acetate	20	BQL
56	Xylenes (Total)	5	BQL

Surrogate Standard Recovery:

1,2-Dichloroethane-d4	96 %
Toluene-d8	107 %
Bromofluorobenzene	99 %

COMMENTS:

BQL = Below Quantitation Limit.

PQL = Practical Quantitation Limit.

J = Approximate result. Quantitation below calibration.

Corresponding Sample: R128-005-03

Doc# MSF11901.MA



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**IEA**

An Aquarion Company

Analysis Report: EPA Method 8270A
(PAGE 1 OF 2 PAGES)

Client: Roy Bros., Inc.
Project: 8579
Report Date: 06/06/95
Collected: 05/18/95
Received: 05/19/95
Extracted: 05/25/95
Analyzed: 06/01/95
By: MEW

IEA ID: R128-005-01
Sample: TB-1 #5
Type: Soil
Container: Glass

Dilution Factor: 54

Number	Compound	PQL ug/kg (dry)	Result ug/kg (dry)
1	Acenaphthene	17820	BQL
2	Acenaphthylene	17820	BQL
3	Aniline	89100	BQL
4	Anthracene	17820	BQL
5	Benzoic acid	89100	BQL
6	Benzo(a)anthracene	17820	BQL
7	Benzo(b)fluoranthene	17820	BQL
8	Benzo(k)fluoranthene	17820	BQL
9	Benzo(g,h,i)perylene	17820	BQL
10	Benzo(a)pyrene	17820	BQL
11	Benzyl alcohol	35640	BQL
12	bis(2-Chloroethoxy)methane	17820	BQL
13	bis(2-Chloroethyl)ether	17820	BQL
14	bis(2-Chloroisopropyl)ether	17820	BQL
15	bis(2-Ethylhexyl)phthalate	17820	120,000
16	4-Bromophenyl phenyl ether	17820	BQL
17	Benzyl butyl phthalate	17820	BQL
18	4-Chloroaniline	35640	BQL
19	2-Chloronaphthalene	17820	BQL
20	4-Chloro-3-methylphenol	35640	BQL
21	2-Chlorophenol	17820	BQL
22	4-Chlorophenyl phenyl ether	17820	BQL
23	Chrysene	17820	BQL
24	Dibenzo(a,h)anthracene	17820	BQL
25	Dibenzofuran	17820	BQL
26	Di-n-butyl phthalate	17820	BQL
27	1,3-Dichlorobenzene	17820	BQL
28	1,4-Dichlorobenzene	17820	BQL
29	1,2-Dichlorobenzene	17820	BQL
30	1,2-Diphenylhydrazine	17820	BQL
31	3,3'-Dichlorobenzidine	35640	BQL
32	2,4-Dichlorophenol	17820	BQL
33	Diethyl phthalate	17820	BQL
34	2,4-Dimethylphenol	17820	BQL
35	Dimethyl phthalate	17820	BQL
36	2-Methyl-4,6-dinitrophenol	89100	BQL
37	2,4-Dinitrophenol	89100	BQL
38	2,4-Dinitrotoluene	17820	BQL

Doc# MSF00200.MA



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IEA

An Aquarion Company

Analysis Report: EPA Method 8270A
(PAGE 2 OF 2 PAGES)

Client: Roy Bros., Inc.
Project: 8579

IEA ID: R128-005-01
Sample: TB-1 #5

Number	Compound	PQL ug/kg (dry)	Result ug/kg (dry)
39	2,6-Dinitrotoluene	17820	BQL
40	Di-n-octylphthalate	17820	BQL
41	Fluoranthene	17820	BQL
42	Fluorene	17820	BQL
43	Hexachlorobenzene	17820	BQL
44	Hexachlorobutadiene	17820	BQL
45	Hexachlorocyclopentadiene	17820	BQL
46	Hexachloroethane	17820	BQL
47	Indeno (1,2,3-cd) pyrene	17820	BQL
48	Isophorone	17820	BQL
49	2-Methylnaphthalene	17820	BQL
50	2-Methylphenol (o-cresol)	17820	BQL
51	4-Methylphenol (p-cresol)	17820	BQL
52	Naphthalene	17820	BQL
53	2-Nitroaniline	89100	BQL
54	3-Nitroaniline	89100	BQL
55	4-Nitroaniline	89100	BQL
56	Nitrobenzene	17820	BQL
57	2-Nitrophenol	17820	BQL
58	4-Nitrophenol	89100	BQL
59	N-Nitroso-di-n-propylamine	17820	BQL
60	N-Nitrosodiphenylamine	17820	BQL
61	Pentachlorophenol	89100	BQL
62	Phenanthrene	17820	BQL
63	Phenol	17820	BQL
64	Pyrene	17820	BQL
65	1,2,4-Trichlorobenzene	17820	BQL
66	2,4,5-Trichlorophenol	17820	BQL
67	2,4,6-Trichlorophenol	17820	BQL

Surrogate Standard Recovery:

2-Fluorophenol	D %
Phenol-d6	D %
Nitrobenzene-d5	D %
2-Fluorobiphenyl	D %
2,4,6-Tribromophenol	D %
Terphenyl-d14	D %

Comments:

PQL = Practical quantitation limit.

BQL = Below quantitation limit.

D = Diluted below calibration.

Quantitation limit elevated due to extract dilution prior to analysis.

Extract diluted due to high concentration of target compounds present.

Doc# MSF00200.MA



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IEA

An Aquarion Company

Analysis Report: EPA Method 8270A
(PAGE 1 OF 2 PAGES)

Client: Roy Bros., Inc.
Project: 8579
Report Date: 06/06/95
Collected: 05/19/95
Received: 05/19/95
Extracted: 05/25/95
Analyzed: 06/06/95
By: MEW

IEA ID: R128-005-07
Sample: E-2 #1, #2, #3
Type: Soil
Container: Glass

Dilution Factor: 1

Number	Compound	PQL ug/kg (dry)	Result ug/kg (dry)
1	Acenaphthene	330	BQL
2	Acenaphthylene	330	BQL
3	Aniline	1650	BQL
4	Anthracene	330	BQL
5	Benzoic acid	1650	BQL
6	Benzo(a)anthracene	330	BQL
7	Benzo(b)fluoranthene	330	BQL
8	Benzo(k)fluoranthene	330	BQL
9	Benzo(g,h,i)perylene	330	BQL
10	Benzo(a)pyrene	330	BQL
11	Benzyl alcohol	660	BQL
12	bis(2-Chloroethoxy)methane	330	BQL
13	bis(2-Chloroethyl) ether	330	BQL
14	bis(2-Chloroisopropyl) ether	330	BQL
15	bis(2-Ethylhexyl)phthalate	330	620,000
16	4-Bromophenyl phenyl ether	330	BQL
17	Benzyl butyl phthalate	330	BQL
18	4-Chloroaniline	660	BQL
19	2-Chloronaphthalene	330	BQL
20	4-Chloro-3-methylphenol	660	BQL
21	2-Chlorophenol	330	BQL
22	4-Chlorophenyl phenyl ether	330	BQL
23	Chrysene	330	BQL
24	Dibenzo(a,h)anthracene	330	BQL
25	Dibenzofuran	330	BQL
26	Di-n-butyl phthalate	330	BQL
27	1,3-Dichlorobenzene	330	BQL
28	1,4-Dichlorobenzene	330	BQL
29	1,2-Dichlorobenzene	330	BQL
30	1,2-Diphenylhydrazine	330	BQL
31	3,3'-Dichlorobenzidine	660	BQL
32	2,4-Dichlorophenol	330	BQL
33	Diethyl phthalate	330	BQL
34	2,4-Dimethylphenol	330	BQL
35	Dimethyl phthalate	330	BQL
36	2-Methyl-4,6-dinitrophenol	1650	BQL
37	2,4-Dinitrophenol	1650	BQL
38	2,4-Dinitrotoluene	330	BQL





IEA

An Aquarion Company

Analysis Report: EPA Method 8270A
(PAGE 1 OF 2 PAGES)

Client: Roy Bros., Inc.
Project: 8579
Report Date: 06/05/95
Collected: 05/19/95
Received: 05/19/95
Extracted: 05/25/95
Analyzed: 05/30/95
By: MEW

IEA ID: R128-005-08
Sample: E-3 #2A
Type: Soil
Container: Glass

Dilution Factor: 11

Number	Compound	PQL ug/kg (dry)	Result ug/kg (dry)
1	Acenaphthene	3630	BQL
2	Acenaphthylene	3630	BQL
3	Aniline	18150	BQL
4	Anthracene	3630	BQL
5	Benzoic acid	18150	BQL
6	Benzo(a)anthracene	3630	BQL
7	Benzo(b)fluoranthene	3630	BQL
8	Benzo(k)fluoranthene	3630	BQL
9	Benzo(g,h,i)perylene	3630	BQL
10	Benzo(a)pyrene	3630	BQL
11	Benzyl alcohol	7260	BQL
12	bis(2-Chloroethoxy)methane	3630	BQL
13	bis(2-Chloroethyl)ether	3630	BQL
14	bis(2-Chloroisopropyl)ether	3630	BQL
15	bis(2-Ethylhexyl)phthalate	3630	26,000
16	4-Bromophenyl phenyl ether	3630	BQL
17	Benzyl butyl phthalate	3630	BQL
18	4-Chloroaniline	7260	BQL
19	2-Chloronaphthalene	3630	BQL
20	4-Chloro-3-methylphenol	7260	BQL
21	2-Chlorophenol	3630	BQL
22	4-Chlorophenyl phenyl ether	3630	BQL
23	Chrysene	3630	BQL
24	Dibenzo(a,h)anthracene	3630	BQL
25	Dibenzofuran	3630	BQL
26	Di-n-butyl phthalate	3630	BQL
27	1,3-Dichlorobenzene	3630	BQL
28	1,4-Dichlorobenzene	3630	BQL
29	1,2-Dichlorobenzene	3630	BQL
30	1,2-Diphenylhydrazine	3630	BQL
31	3,3'-Dichlorobenzidine	7260	BQL
32	2,4-Dichlorophenol	3630	BQL
33	Diethyl phthalate	3630	BQL
34	2,4-Dimethylphenol	3630	BQL
35	Dimethyl phthalate	3630	BQL
36	2-Methyl-4,6-dinitrophenol	18150	BQL
37	2,4-Dinitrophenol	18150	BQL
38	2,4-Dinitrotoluene	3630	BQL

Doc# MSF00200.MA



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**IEA**

An Aquarion Company

Analysis Report: EPA Method 8270A
(PAGE 1 OF 2 PAGES)

Client: Roy Bros., Inc.
Project: 8579
Report Date: 06/06/95
Collected: 05/18/95
Received: 05/19/95
Extracted: 05/25/95
Analyzed: 06/01/95
By: MEW

IEA ID: R128-005-02
Sample: TB-2 #1
Type: Soil
Container: Glass

Dilution Factor: 230

Number	Compound	PQL ug/kg (dry)	Result ug/kg (dry)
1	Acenaphthene	75900	BQL
2	Acenaphthylene	75900	BQL
3	Aniline	379500	BQL
4	Anthracene	75900	BQL
5	Benzoic acid	379500	BQL
6	Benzo(a)anthracene	75900	BQL
7	Benzo(b)fluoranthene	75900	BQL
8	Benzo(k)fluoranthene	75900	BQL
9	Benzo(g,h,i)perylene	75900	BQL
10	Benzo(a)pyrene	75900	BQL
11	Benzyl alcohol	151800	BQL
12	bis(2-Chloroethoxy)methane	75900	BQL
13	bis(2-Chloroethyl)ether	75900	BQL
14	bis(2-Chloroisopropyl)ether	75900	BQL
15	bis(2-Ethylhexyl)phthalate	75900	920,000
16	4-Bromophenyl phenyl ether	75900	BQL
17	Benzyl butyl phthalate	75900	BQL
18	4-Chloroaniline	151800	BQL
19	2-Chloronaphthalene	75900	BQL
20	4-Chloro-3-methylphenol	151800	BQL
21	2-Chlorophenol	75900	BQL
22	4-Chlorophenyl phenyl ether	75900	BQL
23	Chrysene	75900	BQL
24	Dibenzo(a,h)anthracene	75900	BQL
25	Dibenzofuran	75900	BQL
26	Di-n-butyl phthalate	75900	BQL
27	1,3-Dichlorobenzene	75900	BQL
28	1,4-Dichlorobenzene	75900	BQL
29	1,2-Dichlorobenzene	75900	BQL
30	1,2-Diphenylhydrazine	75900	BQL
31	3,3'-Dichlorobenzidine	151800	BQL
32	2,4-Dichlorophenol	75900	BQL
33	Diethyl phthalate	75900	BQL
34	2,4-Dimethylphenol	75900	BQL
35	Dimethyl phthalate	75900	BQL
36	2-Methyl-4,6-dinitrophenol	379500	BQL
37	2,4-Dinitrophenol	379500	BQL
38	2,4-Dinitrotoluene	75900	BQL

Doc# MSF00200.MA



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Client:	Roy Bros., Inc.
Project:	8579
Report Date:	06/06/95
Collected:	05/18/95
Received:	05/19/95
Extracted:	05/25/95
Analyzed:	06/01/95
By:	MEW

IEA ID: R128-005-03
Sample: TB-1 #1
Type: Soil
Container: Glass

Dilution Factor: 210

Number	Compound	PQL ug/kg (dry)	Result ug/kg (dry)
1	Acenaphthene	69300	BQL
2	Acenaphthylene	69300	BQL
3	Aniline	346500	BQL
4	Anthracene	69300	BQL
5	Benzoic acid	346500	BQL
6	Benzo(a)anthracene	69300	BQL
7	Benzo(b)fluoranthene	69300	BQL
8	Benzo(k)fluoranthene	69300	BQL
9	Benzo(g,h,i)perylene	69300	BQL
10	Benzo(a)pyrene	69300	BQL
11	Benzyl alcohol	138600	BQL
12	bis(2-Chloroethoxy)methane	69300	BQL
13	bis(2-Chloroethyl)ether	69300	BQL
14	bis(2-Chloroisopropyl)ether	69300	BQL
15	bis(2-Ethylhexyl)phthalate	69300	720,000
16	4-Bromophenyl phenyl ether	69300	BQL
17	Benzyl butyl phthalate	69300	BQL
18	4-Chloroaniline	138600	BQL
19	2-Chloronaphthalene	69300	BQL
20	4-Chloro-3-methylphenol	138600	BQL
21	2-Chlorophenol	69300	BQL
22	4-Chlorophenyl phenyl ether	69300	BQL
23	Chrysene	69300	BQL
24	Dibenzo(a,h)anthracene	69300	BQL
25	Dibenzofuran	69300	BQL
26	Di-n-butyl phthalate	69300	BQL
27	1,3-Dichlorobenzene	69300	BQL
28	1,4-Dichlorobenzene	69300	BQL
29	1,2-Dichlorobenzene	69300	BQL
30	1,2-Diphenylhydrazine	69300	BQL
31	3,3'-Dichlorobenzidine	138600	BQL
32	2,4-Dichlorophenol	69300	BQL
33	Diethyl phthalate	69300	BQL
34	2,4-Dimethylphenol	69300	BQL
35	Dimethyl phthalate	69300	BQL
36	2-Methyl-4,6-dinitrophenol	346500	BQL
37	2,4-Dinitrophenol	346500	BQL
38	2,4-Dinitrotoluene	69300	BQL





IEA

An Aquarion Company

Analysis Report: EPA Method 8270A
(PAGE 1 OF 2 PAGES)

Client: Roy Bros., Inc.
Project: 8579
Report Date: 06/06/95
Collected: 05/18/95
Received: 05/19/95
Extracted: 05/25/95
Analyzed: 06/06/95
By: MEW

IEA ID: R128-005-06
Sample: MW-7 #4A
Type: Soil
Container: Glass

Dilution Factor: 700

Number	Compound	PQL ug/kg (dry)	Result ug/kg (dry)
1	Acenaphthene	231000	BQL
2	Acenaphthylene	231000	BQL
3	Aniline	1155000	BQL
4	Anthracene	231000	BQL
5	Benzoic acid	1155000	BQL
6	Benzo(a)anthracene	231000	BQL
7	Benzo(b)fluoranthene	231000	BQL
8	Benzo(k)fluoranthene	231000	BQL
9	Benzo(g,h,i)perylene	231000	BQL
10	Benzo(a)pyrene	231000	BQL
11	Benzyl alcohol	462000	BQL
12	bis(2-Chloroethoxy)methane	231000	BQL
13	bis(2-Chloroethyl)ether	231000	BQL
14	bis(2-Chloroisopropyl)ether	231000	BQL
15	bis(2-Ethylhexyl)phthalate	231000	2,600,000
16	4-Bromophenyl phenyl ether	231000	BQL
17	Benzyl butyl phthalate	231000	BQL
18	4-Chloroaniline	462000	BQL
19	2-Chloronaphthalene	231000	BQL
20	4-Chloro-3-methylphenol	462000	BQL
21	2-Chlorophenol	231000	BQL
22	4-Chlorophenyl phenyl ether	231000	BQL
23	Chrysene	231000	BQL
24	Dibenzo(a,h)anthracene	231000	BQL
25	Dibenzofuran	231000	BQL
26	Di-n-butyl phthalate	231000	BQL
27	1,3-Dichlorobenzene	231000	BQL
28	1,4-Dichlorobenzene	231000	BQL
29	1,2-Dichlorobenzene	231000	BQL
30	1,2-Diphenylhydrazine	231000	BQL
31	3,3'-Dichlorobenzidine	462000	BQL
32	2,4-Dichlorophenol	231000	BQL
33	Diethyl phthalate	231000	BQL
34	2,4-Dimethylphenol	231000	BQL
35	Dimethyl phthalate	231000	BQL
36	2-Methyl-4,6-dinitrophenol	1155000	BQL
37	2,4-Dinitrophenol	1155000	BQL
38	2,4-Dinitrotoluene	231000	BQL





IEA

An Aquarion Company

Analysis Report: EPA Method 8270A
(PAGE 2 OF 2 PAGES)

Client: Roy Bros., Inc.
Project: 8579

IEA ID: R128-005-07
Sample: E-2 #1, #2, #3

Number	Compound	PQL ug/kg (dry)	Result ug/kg (dry)
39	2,6-Dinitrotoluene	330	BQL
40	Di-n-octylphthalate	330	BQL
41	Fluoranthene	330	BQL
42	Fluorene	330	BQL
43	Hexachlorobenzene	330	BQL
44	Hexachlorobutadiene	330	BQL
45	Hexachlorocyclopentadiene	330	BQL
46	Hexachloroethane	330	BQL
47	Indeno(1,2,3-cd)pyrene	330	BQL
48	Isophorone	330	BQL
49	2-Methylnaphthalene	330	BQL
50	2-Methylphenol (o-cresol)	330	BQL
51	4-Methylphenol (p-cresol)	330	BQL
52	Naphthalene	330	BQL
53	2-Nitroaniline	1650	BQL
54	3-Nitroaniline	1650	BQL
55	4-Nitroaniline	1650	BQL
56	Nitrobenzene	330	BQL
57	2-Nitrophenol	330	BQL
58	4-Nitrophenol	1650	BQL
59	N-Nitroso-di-n-propylamine	330	BQL
60	N-Nitrosodiphenylamine	330	BQL
61	Pentachlorophenol	1650	BQL
62	Phenanthrene	330	BQL
63	Phenol	330	BQL
64	Pyrene	330	BQL
65	1,2,4-Trichlorobenzene	330	BQL
66	2,4,5-Trichlorophenol	330	BQL
67	2,4,6-Trichlorophenol	330	BQL

Surrogate Standard Recovery:

2-Fluorophenol	D %
Phenol-d6	D %
Nitrobenzene-d5	D %
2-Fluorobiphenyl	D %
2,4,6-Tribromophenol	D %
Terphenyl-d14	D %

Comments:

PQL = Practical quantitation limit.

BQL = Below quantitation limit.

D = Diluted below calibration.

Quantitation limit elevated due to extract dilution prior to analysis.

Extract diluted due to high concentration of target compounds present.

Doc# MSF00200.MA





IEA

An Aquarion Company

Analysis Report: EPA Method 8270A
(PAGE 2 OF 2 PAGES)

Client: Roy Bros., Inc.
Project: 8579

IEA ID: R128-005-02
Sample: TB-2 #1

Number	Compound	PQL ug/kg (dry)	Result ug/kg (dry)
39	2,6-Dinitrotoluene	75900	BQL
40	Di-n-octylphthalate	75900	BQL
41	Fluoranthene	75900	BQL
42	Fluorene	75900	BQL
43	Hexachlorobenzene	75900	BQL
44	Hexachlorobutadiene	75900	BQL
45	Hexachlorocyclopentadiene	75900	BQL
46	Hexachloroethane	75900	BQL
47	Indeno (1,2,3-cd) pyrene	75900	BQL
48	Isophorone	75900	BQL
49	2-Methylnaphthalene	75900	BQL
50	2-Methylphenol (o-cresol)	75900	BQL
51	4-Methylphenol (p-cresol)	75900	BQL
52	Naphthalene	75900	BQL
53	2-Nitroaniline	379500	BQL
54	3-Nitroaniline	379500	BQL
55	4-Nitroaniline	379500	BQL
56	Nitrobenzene	75900	BQL
57	2-Nitrophenol	75900	BQL
58	4-Nitrophenol	379500	BQL
59	N-Nitroso-di-n-propylamine	75900	BQL
60	N-Nitrosodiphenylamine	75900	BQL
61	Pentachlorophenol	379500	BQL
62	Phenanthrene	75900	BQL
63	Phenol	75900	BQL
64	Pyrene	75900	BQL
65	1,2,4-Trichlorobenzene	75900	BQL
66	2,4,5-Trichlorophenol	75900	BQL
67	2,4,6-Trichlorophenol	75900	BQL

Surrogate Standard Recovery:

2-Fluorophenol	D %
Phenol-d6	D %
Nitrobenzene-d5	D %
2-Fluorobiphenyl	D %
2,4,6-Tribromophenol	D %
Terphenyl-d14	D %

Comments:

PQL = Practical quantitation limit.

BQL = Below quantitation limit.

D = Diluted below calibration.

Quantitation limit elevated due to extract dilution prior to analysis.

Extract diluted due to high concentration of target compounds present.

Doc# MSF00200.MA



GROUP 1 - INHIBITORS OF CYP1A2

**IEA**

An Aquarion Company

Analysis Report: EPA Method 8270A
(PAGE 2 OF 2 PAGES)Client: Roy Bros., Inc.
Project: 8579IEA ID: R128-005-03
Sample: TB-1 #1

Number	Compound	PQL ug/kg (dry)	Result ug/kg (dry)
39	2,6-Dinitrotoluene	69300	BQL
40	Di-n-octylphthalate	69300	BQL
41	Fluoranthene	69300	BQL
42	Fluorene	69300	BQL
43	Hexachlorobenzene	69300	BQL
44	Hexachlorobutadiene	69300	BQL
45	Hexachlorocyclopentadiene	69300	BQL
46	Hexachloroethane	69300	BQL
47	Indeno (1,2,3-cd) pyrene	69300	BQL
48	Isophorone	69300	BQL
49	2-Methylnaphthalene	69300	BQL
50	2-Methylphenol (o-cresol)	69300	BQL
51	4-Methylphenol (p-cresol)	69300	BQL
52	Naphthalene	69300	BQL
53	2-Nitroaniline	346500	BQL
54	3-Nitroaniline	346500	BQL
55	4-Nitroaniline	346500	BQL
56	Nitrobenzene	69300	BQL
57	2-Nitrophenol	69300	BQL
58	4-Nitrophenol	346500	BQL
59	N-Nitroso-di-n-propylamine	69300	BQL
60	N-Nitrosodiphenylamine	69300	BQL
61	Pentachlorophenol	346500	BQL
62	Phenanthrene	69300	BQL
63	Phenol	69300	BQL
64	Pyrene	69300	BQL
65	1,2,4-Trichlorobenzene	69300	BQL
66	2,4,5-Trichlorophenol	69300	BQL
67	2,4,6-Trichlorophenol	69300	BQL

Surrogate Standard Recovery:

2-Fluorophenol	D %
Phenol-d6	D %
Nitrobenzene-d5	D %
2-Fluorobiphenyl	D %
2,4,6-Tribromophenol	D %
Terphenyl-d14	D %

Comments:

PQL = Practical quantitation limit.

BQL = Below quantitation limit.

D = Diluted below calibration.

Quantitation limit elevated due to extract dilution prior to analysis.

Extract diluted due to high concentration of target compounds present.

Doc# MSF00200.MA



REPRODUCED FROM

**IEA**

An Aquarion Company

Analysis Report: EPA Method 8270A
(PAGE 2 OF 2 PAGES)Client: Roy Bros., Inc.
Project: 8579IEA ID: R128-005-06
Sample: MW-7 #4A

Number	Compound	PQL ug/kg (dry)	Result ug/kg (dry)
39	2,6-Dinitrotoluene	231000	BQL
40	Di-n-octylphthalate	231000	BQL
41	Fluoranthene	231000	BQL
42	Fluorene	231000	BQL
43	Hexachlorobenzene	231000	BQL
44	Hexachlorobutadiene	231000	BQL
45	Hexachlorocyclopentadiene	231000	BQL
46	Hexachloroethane	231000	BQL
47	Indeno(1,2,3-cd)pyrene	231000	BQL
48	Isophorone	231000	BQL
49	2-Methylnaphthalene	231000	BQL
50	2-Methylphenol (o-cresol)	231000	BQL
51	4-Methylphenol (p-cresol)	231000	BQL
52	Naphthalene	231000	BQL
53	2-Nitroaniline	1155000	BQL
54	3-Nitroaniline	1155000	BQL
55	4-Nitroaniline	1155000	BQL
56	Nitrobenzene	231000	BQL
57	2-Nitrophenol	231000	BQL
58	4-Nitrophenol	1155000	BQL
59	N-Nitroso-di-n-propylamine	231000	BQL
60	N-Nitrosodiphenylamine	231000	BQL
61	Pentachlorophenol	1155000	BQL
62	Phenanthrene	231000	BQL
63	Phenol	231000	BQL
64	Pyrene	231000	BQL
65	1,2,4-Trichlorobenzene	231000	BQL
66	2,4,5-Trichlorophenol	231000	BQL
67	2,4,6-Trichlorophenol	231000	BQL

Surrogate Standard Recovery:

2-Fluorophenol	D %
Phenol-d6	D %
Nitrobenzene-d5	D %
2-Fluorobiphenyl	D %
2,4,6-Tribromophenol	D %
Terphenyl-d14	D %

Comments:

PQL = Practical quantitation limit.

BQL = Below quantitation limit.

D = Diluted below calibration.

Quantitation limit elevated due to extract dilution prior to analysis.

Extract diluted due to high concentration of target compounds present.

Doc# MSF00200.MA

**IEA**

An Aquarion Company

Analysis Report: EPA Method 8270A
(PAGE 2 OF 2 PAGES)Client: Roy Bros., Inc.
Project: 8579IEA ID: R128-005-08
Sample: E-3 #2A

Number	Compound	PQL ug/kg (dry)	Result ug/kg (dry)
39	2,6-Dinitrotoluene	3630	BQL
40	Di-n-octylphthalate	3630	BQL
41	Fluoranthene	3630	BQL
42	Fluorene	3630	BQL
43	Hexachlorobenzene	3630	BQL
44	Hexachlorobutadiene	3630	BQL
45	Hexachlorocyclopentadiene	3630	BQL
46	Hexachloroethane	3630	BQL
47	Indeno (1,2,3-cd) pyrene	3630	BQL
48	Isophorone	3630	BQL
49	2-Methylnaphthalene	3630	BQL
50	2-Methylphenol (o-cresol)	3630	BQL
51	4-Methylphenol (p-cresol)	3630	BQL
52	Naphthalene	3630	BQL
53	2-Nitroaniline	18150	BQL
54	3-Nitroaniline	18150	BQL
55	4-Nitroaniline	18150	BQL
56	Nitrobenzene	3630	BQL
57	2-Nitrophenol	3630	BQL
58	4-Nitrophenol	18150	BQL
59	N-Nitroso-di-n-propylamine	3630	BQL
60	N-Nitrosodiphenylamine	3630	BQL
61	Pentachlorophenol	18150	BQL
62	Phenanthrene	3630	BQL
63	Phenol	3630	BQL
64	Pyrene	3630	BQL
65	1,2,4-Trichlorobenzene	3630	BQL
66	2,4,5-Trichlorophenol	3630	BQL
67	2,4,6-Trichlorophenol	3630	BQL

Surrogate Standard Recovery:

2-Fluorophenol	D %
Phenol-d6	D %
Nitrobenzene-d5	D %
2-Fluorobiphenyl	D %
2,4,6-Tribromophenol	D %
Terphenyl-d14	D %

Comments:

PQL = Practical quantitation limit.

BQL = Below quantitation limit.

D = Diluted below calibration.

Quantitation limit elevated due to extract dilution prior to analysis.

Extract diluted due to high concentration of target compounds present.

Doc# MSF00200.MA



OPTIONAL SECURITY PAPER

**IEA**

An Aquarion Company

Analysis Report: EPA Method 8270A
(PAGE 1 OF 2 PAGES)

Client: Roy Bros., Inc.
Project: 8579
Report Date: 06/05/95
Collected: 05/19/95
Received: 05/19/95
Extracted: 05/25/95
Analyzed: 05/30/95
By: MEW

IEA ID: R128-005-09
Sample: E-4 #3B
Type: Soil
Container: Glass

Dilution Factor: 6

Number	Compound	PQL ug/kg (dry)	Result ug/kg (dry)
1	Acenaphthene	1980	BQL
2	Acenaphthylene	1980	BQL
3	Aniline	9900	BQL
4	Anthracene	1980	BQL
5	Benzoic acid	9900	BQL
6	Benzo(a)anthracene	1980	BQL
7	Benzo(b)fluoranthene	1980	BQL
8	Benzo(k)fluoranthene	1980	BQL
9	Benzo(g,h,i)perylene	1980	BQL
10	Benzo(a)pyrene	1980	BQL
11	Benzyl alcohol	3960	BQL
12	bis(2-Chloroethoxy)methane	1980	BQL
13	bis(2-Chloroethyl)ether	1980	BQL
14	bis(2-Chloroisopropyl)ether	1980	BQL
15	bis(2-Ethylhexyl)phthalate	1980	18,000
16	4-Bromophenyl phenyl ether	1980	BQL
17	Benzyl butyl phthalate	1980	BQL
18	4-Chloroaniline	3960	BQL
19	2-Chloronaphthalene	1980	BQL
20	4-Chloro-3-methylphenol	3960	BQL
21	2-Chlorophenol	1980	BQL
22	4-Chlorophenyl phenyl ether	1980	BQL
23	Chrysene	1980	BQL
24	Dibenzo(a,h)anthracene	1980	BQL
25	Dibenzofuran	1980	BQL
26	Di-n-butyl phthalate	1980	BQL
27	1,3-Dichlorobenzene	1980	BQL
28	1,4-Dichlorobenzene	1980	BQL
29	1,2-Dichlorobenzene	1980	BQL
30	1,2-Diphenylhydrazine	1980	BQL
31	3,3'-Dichlorobenzidine	3960	BQL
32	2,4-Dichlorophenol	1980	BQL
33	Diethyl phthalate	1980	BQL
34	2,4-Dimethylphenol	1980	BQL
35	Dimethyl phthalate	1980	BQL
36	2-Methyl-4,6-dinitrophenol	9900	BQL
37	2,4-Dinitrophenol	9900	BQL
38	2,4-Dinitrotoluene	1980	BQL

Doc# MSF00200.MA



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**IEA**

An Aquarion Company

Analysis Report: EPA Method 8270A
(PAGE 2 OF 2 PAGES)Client: Roy Bros., Inc.
Project: 8579IEA ID: R128-005-09
Sample: E-4 #3B

Number	Compound	PQL ug/kg (dry)	Result ug/kg (dry)
39	2,6-Dinitrotoluene	1980	BQL
40	Di-n-octylphthalate	1980	BQL
41	Fluoranthene	1980	BQL
42	Fluorene	1980	BQL
43	Hexachlorobenzene	1980	BQL
44	Hexachlorobutadiene	1980	BQL
45	Hexachlorocyclopentadiene	1980	BQL
46	Hexachloroethane	1980	BQL
47	Indeno (1,2,3-cd) pyrene	1980	BQL
48	Isophorone	1980	BQL
49	2-Methylnaphthalene	1980	BQL
50	2-Methylphenol (o-cresol)	1980	BQL
51	4-Methylphenol (p-cresol)	1980	BQL
52	Naphthalene	1980	BQL
53	2-Nitroaniline	9900	BQL
54	3-Nitroaniline	9900	BQL
55	4-Nitroaniline	9900	BQL
56	Nitrobenzene	1980	BQL
57	2-Nitrophenol	1980	BQL
58	4-Nitrophenol	9900	BQL
59	N-Nitroso-di-n-propylamine	1980	BQL
60	N-Nitrosodiphenylamine	1980	BQL
61	Pentachlorophenol	9900	BQL
62	Phenanthrene	1980	BQL
63	Phenol	1980	BQL
64	Pyrene	1980	BQL
65	1,2,4-Trichlorobenzene	1980	BQL
66	2,4,5-Trichlorophenol	1980	BQL
67	2,4,6-Trichlorophenol	1980	BQL

Surrogate Standard Recovery:

2-Fluorophenol	D %
Phenol-d6	D %
Nitrobenzene-d5	D %
2-Fluorobiphenyl	D %
2,4,6-Tribromophenol	D %
Terphenyl-d14	D %

Comments:

PQL = Practical quantitation limit.

BQL = Below quantitation limit.

D = Diluted below calibration.

Quantitation limit elevated due to extract dilution prior to analysis.

Extract diluted due to high concentration of target compounds present.

Doc# MSF00200.MA



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**IEA**

An Aquarion Company

Analysis Report: EPA Method 8270A
(PAGE 1 OF 2 PAGES)

Client: Roy Bros., Inc.
Project: 8579
Report Date: 06/06/95
Collected: 05/19/95
Received: 05/19/95
Extracted: 05/25/95
Analyzed: 06/02/95
By: MEW

IEA ID: R128-005-10
Sample: E-5 #1, #2
Type: Soil
Container: Glass

Dilution Factor: 440

Number	Compound	PQL ug/kg (dry)	Result ug/kg (dry)
1	Acenaphthene	145200	BQL
2	Acenaphthylene	145200	BQL
3	Aniline	726000	BQL
4	Anthracene	145200	BQL
5	Benzoic acid	726000	BQL
6	Benzo(a)anthracene	145200	BQL
7	Benzo(b)fluoranthene	145200	BQL
8	Benzo(k)fluoranthene	145200	BQL
9	Benzo(g,h,i)perylene	145200	BQL
10	Benzo(a)pyrene	145200	BQL
11	Benzyl alcohol	290400	BQL
12	bis(2-Chloroethoxy)methane	145200	BQL
13	bis(2-Chloroethyl)ether	145200	BQL
14	bis(2-Chloroisopropyl)ether	145200	BQL
15	bis(2-Ethylhexyl)phthalate	145200	820,000
16	4-Bromophenyl phenyl ether	145200	BQL
17	Benzyl butyl phthalate	145200	BQL
18	4-Chloroaniline	290400	BQL
19	2-Chloronaphthalene	145200	BQL
20	4-Chloro-3-methylphenol	290400	BQL
21	2-Chlorophenol	145200	BQL
22	4-Chlorophenyl phenyl ether	145200	BQL
23	Chrysene	145200	BQL
24	Dibenzo(a,h)anthracene	145200	BQL
25	Dibenzofuran	145200	BQL
26	Di-n-butyl phthalate	145200	BQL
27	1,3-Dichlorobenzene	145200	BQL
28	1,4-Dichlorobenzene	145200	BQL
29	1,2-Dichlorobenzene	145200	BQL
30	1,2-Diphenylhydrazine	145200	BQL
31	3,3'-Dichlorobenzidine	290400	BQL
32	2,4-Dichlorophenol	145200	BQL
33	Diethyl phthalate	145200	BQL
34	2,4-Dimethylphenol	145200	BQL
35	Dimethyl phthalate	145200	BQL
36	2-Methyl-4,6-dinitrophenol	726000	BQL
37	2,4-Dinitrophenol	726000	BQL
38	2,4-Dinitrotoluene	145200	BQL

Doc# MSF00200.MA



200005 00 1000001 0000

**IEA**

An Aquarion Company

Analysis Report: EPA Method 8270A
(PAGE 2 OF 2 PAGES)Client: Roy Bros., Inc.
Project: 8579IEA ID: R128-005-10
Sample: E-5 #1, #2

Number	Compound	PQL ug/kg (dry)	Result ug/kg (dry)
39	2,6-Dinitrotoluene	145200	BQL
40	Di-n-octylphthalate	145200	BQL
41	Fluoranthene	145200	BQL
42	Fluorene	145200	BQL
43	Hexachlorobenzene	145200	BQL
44	Hexachlorobutadiene	145200	BQL
45	Hexachlorocyclopentadiene	145200	BQL
46	Hexachloroethane	145200	BQL
47	Indeno (1,2,3-cd)pyrene	145200	BQL
48	Isophorone	145200	BQL
49	2-Methylnaphthalene	145200	BQL
50	2-Methylphenol (o-cresol)	145200	BQL
51	4-Methylphenol (p-cresol)	145200	BQL
52	Naphthalene	145200	BQL
53	2-Nitroaniline	726000	BQL
54	3-Nitroaniline	726000	BQL
55	4-Nitroaniline	726000	BQL
56	Nitrobenzene	145200	BQL
57	2-Nitrophenol	145200	BQL
58	4-Nitrophenol	726000	BQL
59	N-Nitroso-di-n-propylamine	145200	BQL
60	N-Nitrosodiphenylamine	145200	BQL
61	Pentachlorophenol	726000	BQL
62	Phenanthrene	145200	BQL
63	Phenol	145200	BQL
64	Pyrene	145200	BQL
65	1,2,4-Trichlorobenzene	145200	BQL
66	2,4,5-Trichlorophenol	145200	BQL
67	2,4,6-Trichlorophenol	145200	BQL

Surrogate Standard Recovery:

2-Fluorophenol	D %
Phenol-d6	D %
Nitrobenzene-d5	D %
2-Fluorobiphenyl	D %
2,4,6-Tribromophenol	D %
Terphenyl-d14	D %

Comments:

PQL = Practical quantitation limit.

BQL = Below quantitation limit.

D = Diluted below calibration.

Quantitation limit elevated due to extract dilution prior to analysis.

Extract diluted due to high concentration of target compounds present.

Doc# MSF00200.MA



SURVEILLANCE REPORT

**IEA**

An Aquarion Company

Analysis Report: EPA Method 8270A
(PAGE 1 OF 2 PAGES)

Client: Roy Bros., Inc.
Project: 8579
Report Date: 06/05/95
Collected: 05/19/95
Received: 05/19/95
Extracted: 05/25/95
Analyzed: 05/30/95
By: MEW

IEA ID: R128-005-11
Sample: E-6 #1
Type: Soil
Container: Glass

Dilution Factor: 5.7

Number	Compound	PQL ug/kg (dry)	Result ug/kg (dry)
1	Acenaphthene	1881	BQL
2	Acenaphthylene	1881	BQL
3	Aniline	9405	BQL
4	Anthracene	1881	3,800
5	Benzoic acid	9405	BQL
6	Benzo(a)anthracene	1881	3,200
7	Benzo(b)fluoranthene	1881	3,100
8	Benzo(k)fluoranthene	1881	BQL
9	Benzo(g,h,i)perylene	1881	BQL
10	Benzo(a)pyrene	1881	2,800
11	Benzyl alcohol	3762	BQL
12	bis(2-Chloroethoxy)methane	1881	BQL
13	bis(2-Chloroethyl)ether	1881	BQL
14	bis(2-Chloroisopropyl)ether	1881	BQL
15	bis(2-Ethylhexyl)phthalate	1881	4,300
16	4-Bromophenyl phenyl ether	1881	BQL
17	Benzyl butyl phthalate	1881	BQL
18	4-Chloroaniline	3762	BQL
19	2-Chloronaphthalene	1881	BQL
20	4-Chloro-3-methylphenol	3762	BQL
21	2-Chlorophenol	1881	BQL
22	4-Chlorophenyl phenyl ether	1881	BQL
23	Chrysene	1881	2,900
24	Dibenzo(a,h)anthracene	1881	BQL
25	Dibenzofuran	1881	BQL
26	Di-n-butyl phthalate	1881	BQL
27	1,3-Dichlorobenzene	1881	BQL
28	1,4-Dichlorobenzene	1881	BQL
29	1,2-Dichlorobenzene	1881	BQL
30	1,2-Diphenylhydrazine	1881	BQL
31	3,3'-Dichlorobenzidine	3762	BQL
32	2,4-Dichlorophenol	1881	BQL
33	Diethyl phthalate	1881	BQL
34	2,4-Dimethylphenol	1881	BQL
35	Dimethyl phthalate	1881	BQL
36	2-Methyl-4,6-dinitrophenol	9405	BQL
37	2,4-Dinitrophenol	9405	BQL
38	2,4-Dinitrotoluene	1881	BQL

Doc# MSF00200.MA



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**IEA**

An Aquarion Company

Analysis Report: EPA Method 8270A
(PAGE 2 OF 2 PAGES)Client: Roy Bros., Inc.
Project: 8579IEA ID: R128-005-11
Sample: E-6 #1

Number	Compound	PQL ug/kg (dry)	Result ug/kg (dry)
39	2,6-Dinitrotoluene	1881	BQL
40	Di-n-octylphthalate	1881	BQL
41	Fluoranthene	1881	8,900
42	Fluorene	1881	BQL
43	Hexachlorobenzene	1881	BQL
44	Hexachlorobutadiene	1881	BQL
45	Hexachlorocyclopentadiene	1881	BQL
46	Hexachloroethane	1881	BQL
47	Indeno (1,2,3-cd) pyrene	1881	BQL
48	Isophorone	1881	BQL
49	2-Methylnaphthalene	1881	BQL
50	2-Methylphenol (o-cresol)	1881	BQL
51	4-Methylphenol (p-cresol)	1881	BQL
52	Naphthalene	1881	BQL
53	2-Nitroaniline	9405	BQL
54	3-Nitroaniline	9405	BQL
55	4-Nitroaniline	9405	BQL
56	Nitrobenzene	1881	BQL
57	2-Nitrophenol	1881	BQL
58	4-Nitrophenol	9405	BQL
59	N-Nitroso-di-n-propylamine	1881	BQL
60	N-Nitrosodiphenylamine	1881	BQL
61	Pentachlorophenol	9405	BQL
62	Phenanthrene	1881	10,000
63	Phenol	1881	BQL
64	Pyrene	1881	9,300
65	1,2,4-Trichlorobenzene	1881	BQL
66	2,4,5-Trichlorophenol	1881	BQL
67	2,4,6-Trichlorophenol	1881	BQL

Surrogate Standard Recovery:

2-Fluorophenol	D %
Phenol-d6	D %
Nitrobenzene-d5	D %
2-Fluorobiphenyl	D %
2,4,6-Tribromophenol	D %
Terphenyl-d14	D %

Comments:

PQL = Practical quantitation limit.

BQL = Below quantitation limit.

D = Diluted below calibration.

Quantitation limit elevated due to extract dilution prior to analysis.

Extract diluted due to high concentration of target compounds present.

Doc# MSF00200.MA



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IEA

An Aquarion Company

149 Rongeway Road
N. Billerica, Massachusetts 01862
508 / 887-1400
Fax 808 / 887-7871

CHAIN OF CUSTODY RECORD

REGULATORY CLASSIFICATION - PLEASE SPECIFY

☐ NPDES ☐ DRINKING WATER ☐ RCRA ☐ MCP ☒ OTHER

REQUIRED

CUST.
P.O.

IEA
QUOTE
#

TURN AROUND

☐ 15 BUSINESS DAY
☒ 10 BUSINESS DAY
☐ RUSH
☐ OTHER

COMPANY		CONTACT PERSON	PROJECT I.D.	PHONE #	FAX #								
Roy Bros. Inc.		Leo Roy	8579	667-1921	667-5091								
ADDRESS			MATRIX	CONTAINER TYPE	# OF CONTAINERS	PRESERVATIVES	REQUESTED PARAMETERS					(COMMENTS)	
164 Boston Rd.													
CITY	STATE	ZIP											
Billerica	MA	01821											
DATE	TIME	SAMPLE I.D.											
5/19/95	5:45 PM	E-5 #1, #2	S		2								ANALYZE COMPOSITE OF BOTH SAMPLES
↓		E-6 #1	S		1								

SAMPLED BY: <u>Bart Pardon</u> (PRINT NAME)		<u>Bart Pardon</u> (SIGNATURE)	
RELINQUISHED BY (SIGNATURE)	DATE / TIME	RECEIVED BY	DATE / TIME
<u>Bart Pardon</u>	5/19/95 1900	<u>Wheel</u>	5/19/95 1920
RELINQUISHED BY (SIGNATURE)	DATE / TIME	RECEIVED FOR LAB BY	DATE / TIME

IEA USE ONLY

Note composite instructions 2 of 2

FIELD REMARKS

108-005 0805132

IEA

An Aquilon Company

149 Rangeway Road
N. Billerica, Massachusetts 01862
508 / 667-1400
Fax 508 / 667-7871

CHAIN OF CUSTODY RECORD

REGULATORY CLASSIFICATION - PLEASE SPECIFY

☐ NPDES ☐ DRINKING WATER ☐ RCRA ☐ MCP ☐ OTHER

REQUIRED

QUOTED
P.O.

IEA
QUOTE
#

TURN AROUND

☐ 15 BUSINESS DAY
☒ 10 BUSINESS DAY
☐ RUSH
☐ OTHER

COMPANY: *Beas. Inc.* CONTACT PERSON: *Leo Roy.* PROJECT I.D.: *8579* PHONE #: *667-1921* FAX #: *667-5091*

ADDRESS: *4 Boston Rd.*
CITY: *Billerica* STATE: *MA* ZIP: *01821*

DATE	TIME	SAMPLE I.D.
8/95		TB-1 #5
		TB-2 #1
		TB-1 #1
		MW-6 #1
		MW-6 #3
		MW-7 #4A
9/95		E-2 #1, #2, #3
		E-3 #2A
		E-4 #3B

MATRIX	CONTAINER TYPE	# OF CONTAINERS	PRESERVATIVES	REQUESTED PARAMETERS										(COMMENTS)
				13	TPH	8100	8260	8270						
S		2		✓	✓	✓	✓							
S		2			✓	✓	✓							
S		1		✓		✓	✓							GET SAMPLE FROM LEO ROY *
S		1			✓	✓								
S		2			✓	✓								
S		1			✓	✓	✓							ANALYZE THE SOIL NOT THE WOOD, ETC.
S		3		✓	✓	✓	✓							ANALYZE COMPOSITE OF ALL THREE
S		2		✓	✓		✓							
S		2			✓	✓	✓							

EMPLED BY: *Dani Paulino* (PRINT NAME) *Dani Paulino* (SIGNATURE)

RELINQUISHED BY (SIGNATURE)	DATE / TIME	RECEIVED BY	DATE / TIME
<i>Dani Paulino</i>	5/19/95 1900		
RELINQUISHED BY (SIGNATURE)	DATE / TIME	RECEIVED FOR LAB BY	DATE / TIME
		<i>Michael</i>	5/19/95 1900

IEA USE ONLY

* PICKUP TB-1 #1 ON MAY 22, 1995. 1 of 2
Note: Compositing Instructions, IEA

FIELD REMARKS

PLEASE SEND 2 COPIES OF RESULTS TO
LEO ROY AND 1 COPY TO DANIEL PAULINO.

ATTACHMENT I

ROY BROS HAULERS

**GROUNDWATER SAMPLE ANALYTICAL RESULTS
GEOLOGIC FIELD SERVICES, INC.**

Samples collected 1 June 1995



IEA

An Aquarion Company

149 Rangeway Road
North Billerica, MA 01862

Phone 508-667-1400
Fax 508-667-7871

Mr. Bart Paulding
1 Pepperell Road
West Groton, MA 01472

June 16, 1995

Dear Mr. Paulding:

Please find enclosed the analytical results of the sample(s) received at our laboratory on June 1, 1995. This report contains sections addressing the following information at a minimum:

- analytical results
- chain-of-custody (if applicable)

Client Project #	952132	Client Project Name	N/A
IEA Report #	P100-013	Purchase Order #	N/A

Copies of this analytical report and supporting data are maintained in our files for a minimum of 3 years unless special arrangements are made. Unless specifically indicated, all analytical testing was performed at the IEA-Massachusetts laboratory.

We appreciate your selection of our services and welcome any questions or suggestions you may have relative to this report. Please contact your customer service representative at (508) 667-1400 for any additional information. Thank you for utilizing our services and we hope you will consider us for your future analytical needs.

I have reviewed and approved the enclosed data for final release.

Sincerely,

Michael F. Wheeler, Ph.D.
Laboratory Director
IEA-Massachusetts

MW/smb

DOC# RPF00300.MA

Monroe,
Connecticut
203-261-4458

Sunrise,
Florida
305-346-1730

Schaumburg,
Illinois
708-705-0740

Whippany,
New Jersey
201-426-8181

Research Triangle Park,
North Carolina
919-677-0090



IEA

An Aquarion Company

Analysis Report: Extractable Petroleum Hydrocarbons by GC/FID
EPA 8100 (Modified)

Client: Bart Paulding
Project: 952132
Report Date: 06/16/95
Collected: 06/01/95
Received: 06/01/95
Extracted: 06/06/95
Analyzed: 06/07/95
By: DB

IEA ID: P100-013-01
Sample: MW-5
Type: Water
Container: Glass

Dilution Factor: 1

Petroleum Product	Cn Range	Result (mg/L)	PQL (mg/L)	Fingerprint Match Quality
Kerosene (C7-C32)	---	BQL	0.5	---
Fuel Oil #2 (C8-C36)	8-38	12	0.5	3
Fuel Oil #6 (C8-C40)	---	BQL	2.5	---
Motor Oil (C14-C40)	---	BQL	2.5	---

Match Quality Scale:

- 1 - Identical or nearly identical GC pattern.
- 2 - Similar GC pattern showing moderate differences.
- 3 - Significant difference in GC pattern.
- 4 - No agreement with GC patterns in target list. Quantitation based on petroleum product with similar Cn range.

Comments:

BQL = Below quantitation limit.

PQL = Practical quantitation limit.

Results for Coal Tar and Motor Oil based on chromatographable portions of petroleum product.

Cn range refers to the approximate chromatographic region covered by the specified petroleum product in straight-chain carbon units.



IEA

An Aquarion Company

Analysis Report: Extractable Petroleum Hydrocarbons by GC/FID EPA 8100 (Modified)

Client: Bart Paulding
Project: 952132
Report Date: 06/16/95
Collected: 06/01/95
Received: 06/01/95
Extracted: 06/06/95
Analyzed: 06/07/95
By: DB

IEA ID: P100-013-02
Sample: MW-4
Type: Water
Container: Glass

Dilution Factor: 1

Petroleum Product	Cn Range	Result (mg/L)	PQL (mg/L)	Fingerprint Match Quality
Kerosene (C7-C32)	---	BQL	0.5	---
Fuel Oil #2 (C8-C36)	---	BQL	0.5	---
Fuel Oil #6 (C8-C40)	---	BQL	2.5	---
Motor Oil (C14-C40)	20-40	3.0	2.5	3
Unknown	8-20	1.8	2.5	4

Match Quality Scale:

- 1 - Identical or nearly identical GC pattern.
- 2 - Similar GC pattern showing moderate differences.
- 3 - Significant difference in GC pattern.
- 4 - No agreement with GC patterns in target list. Quantitation based on petroleum product with similar Cn range.

Comments:

BQL = Below quantitation limit.

PQL = Practical quantitation limit.

Results for Coal Tar and Motor Oil based on chromatographable portions of petroleum product.

Cn range refers to the approximate chromatographic region covered by the specified petroleum product in straight-chain carbon units.



IEA

An Aquarion Company

Analysis Report: Extractable Petroleum Hydrocarbons by GC/FID
EPA 8100 (Modified)

Client: Bart Paulding
Project: 952132
Report Date: 06/16/95
Collected: 06/01/95
Received: 06/01/95
Extracted: 06/06/95
Analyzed: 06/07/95
By: DB

IEA ID: P100-013-03
Sample: MW-6
Type: Water
Container: Glass

Dilution Factor: 1

Petroleum Product	Cn Range	Result (mg/L)	PQL (mg/L)	Fingerprint Match Quality
Kerosene (C7-C32)	---	BQL	0.5	---
Fuel Oil #2 (C8-C36)	7-36	5.8	0.5	3
Fuel Oil #6 (C8-C40)	---	BQL	2.5	---
Motor Oil (C14-C40)	---	BQL	2.5	---

Match Quality Scale:

- 1 - Identical or nearly identical GC pattern.
- 2 - Similar GC pattern showing moderate differences.
- 3 - Significant difference in GC pattern.
- 4 - No agreement with GC patterns in target list. Quantitation based on petroleum product with similar Cn range.

Comments:

BQL = Below quantitation limit.

PQL = Practical quantitation limit.

Results for Coal Tar and Motor Oil based on chromatographable portions of petroleum product.

Cn range refers to the approximate chromatographic region covered by the specified petroleum product in straight-chain carbon units.



IEA

An Aquarion Company

Analysis Report: Extractable Petroleum Hydrocarbons by GC/FID
EPA 8100 (Modified)

Client: Bart Paulding
Project: 952132
Report Date: 06/16/95
Collected: 06/01/95
Received: 06/01/95
Extracted: 06/06/95
Analyzed: 06/07/95
By: DB

IEA ID: P100-013-04
Sample: MW-7
Type: Water
Container: Glass

Dilution Factor: 1

Petroleum Product	Cn Range	Result (mg/L)	PQL (mg/L)	Fingerprint Match Quality
Kerosene (C7-C32)	---	BQL	0.5	---
Fuel Oil #2 (C8-C36)	---	BQL	0.5	---
Fuel Oil #6 (C8-C40)	---	BQL	2.5	---
Motor Oil (C14-C40)	---	BQL	2.5	---
Unknown	7-40	34	2.5	4

Match Quality Scale:

- 1 - Identical or nearly identical GC pattern.
- 2 - Similar GC pattern showing moderate differences.
- 3 - Significant difference in GC pattern.
- 4 - No agreement with GC patterns in target list. Quantitation based on petroleum product with similar Cn range.

Comments:

BQL = Below quantitation limit.

PQL = Practical quantitation limit.

Results for Coal Tar and Motor Oil based on chromatographable portions of petroleum product.

Cn range refers to the approximate chromatographic region covered by the specified petroleum product in straight-chain carbon units.

**IEA**

An Aquarion Company

Analysis Report: EPA Method 8260A
(PAGE 1 OF 2 PAGES)

Client: Bart Paulding
Project: 952132
Report Date: 06/16/95
Collected: 06/01/95
Received: 06/01/95
Analyzed: 06/08/95
By: MEW

IEA ID: P100-013-02
Sample: MW-4
Type: Water
Container: VOA

Dilution Factor: 1

Priority Pollutant Compounds

Number	Compound	PQL (ug/L)	Result (ug/L)
1	Benzene	1	BQL
2	Bromodichloromethane	1	BQL
3	Bromoform	1	BQL
4	Bromomethane	2	BQL
5	Carbon tetrachloride	1	BQL
6	Chlorobenzene	1	BQL
7	Chloroethane	2	BQL
8	2-Chloroethylvinyl ether	1	BQL
9	Chloroform	1	BQL
10	Chloromethane	2	BQL
11	Dibromochloromethane	1	BQL
12	1,2-Dichlorobenzene	1	BQL
13	1,3-Dichlorobenzene	1	BQL
14	1,4-Dichlorobenzene	1	BQL
15	1,1-Dichloroethane	1	BQL
16	1,2-Dichloroethane	1	BQL
17	1,1-Dichloroethene	1	BQL
18	1,2-Dichloroethenes (Total)	1	BQL
19	1,2-Dichloropropane	1	BQL
20	cis-1,3-Dichloropropene	0.5	BQL
21	trans-1,3-Dichloropropene	0.5	BQL
22	Ethylbenzene	1	BQL
23	Methylene chloride	1	2B
24	1,1,2,2-Tetrachloroethane	1	BQL
25	Tetrachloroethene	1	BQL
26	Toluene	1	BQL
27	1,1,1-Trichloroethane	1	BQL
28	1,1,2-Trichloroethane	1	BQL
29	Trichloroethene	1	BQL
30	Trichlorofluoromethane	1	BQL
31	Vinyl chloride	2	BQL

Doc# MSF11801.MA

**IEA**

An Aquarion Company

Analysis Report: EPA Method 8260A
(PAGE 2 OF 2 PAGES)Client: Bart Paulding
Project: 952132IEA ID: P100-013-02
Sample: MW-4

Other TCL Compounds *

Number	Compound	PQL (ug/L)	Result (ug/L)
32	Acetone	20	BQL
33	2-Butanone	20	BQL
34	n-Butylbenzene	1	BQL
35	s-Butylbenzene	1	BQL
36	t-Butylbenzene	1	BQL
37	Carbon disulfide	1	2
38	2-Chlorotoluene	1	BQL
39	4-Chlorotoluene	1	BQL
40	1,2-Dibromoethane	1	BQL
41	2-Hexanone	10	BQL
42	Hexachlorobutadiene	0.6	BQL
43	Isopropylbenzene	1	BQL
44	p-Isopropyltoluene	1	BQL
45	4-Methyl-2-pentanone	10	BQL
46	Methyl-t-butyl ether	1	BQL
47	Naphthalene	10	BQL
48	n-Propylbenzene	1	BQL
49	Styrene	1	BQL
50	1,1,1,2-Tetrachloroethane	1	BQL
51	1,2,3-Trichlorobenzene	1	BQL
52	1,2,4-Trichlorobenzene	1	BQL
53	1,2,4-Trimethylbenzene	1	BQL
54	1,3,5-Trimethylbenzene	1	BQL
55	Vinyl acetate	10	BQL
56	Xylenes	1	BQL

Surrogate Standard Recovery:

1,2-Dichloroethane-d4	107 %
Toluene-d8	114 %
Bromofluorobenzene	91 %

COMMENTS:

BQL = Below Quantitation Limit.
PQL = Practical Quantitation Limit.
B = Compound in blank

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IEA

An Aquaron Company

Analysis Report: EPA Method 8260A
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Client: Bart Paulding
Project: 952132
Report Date: 06/16/95
Collected: 06/01/95
Received: 06/01/95
Analyzed: 06/09/95
By: GMT

IEA ID: P100-013-01
Sample: MW-5
Type: Water
Container: VOA

Dilution Factor: 20

Priority Pollutant Compounds

Number	Compound	PQL (ug/L)	Result (ug/L)
1	Benzene	20	BQL
2	Bromodichloromethane	20	BQL
3	Bromoform	20	BQL
4	Bromomethane	40	BQL
5	Carbon tetrachloride	20	BQL
6	Chlorobenzene	20	BQL
7	Chloroethane	40	BQL
8	2-Chloroethylvinyl ether	20	BQL
9	Chloroform	20	BQL
10	Chloromethane	40	BQL
11	Dibromochloromethane	20	BQL
12	1,2-Dichlorobenzene	20	BQL
13	1,3-Dichlorobenzene	20	BQL
14	1,4-Dichlorobenzene	20	BQL
15	1,1-Dichloroethane	20	BQL
16	1,2-Dichloroethane	20	BQL
17	1,1-Dichloroethene	20	BQL
18	1,2-Dichloroethenes (Total)	20	BQL
19	1,2-Dichloropropane	20	BQL
20	cis-1,3-Dichloropropene	10	BQL
21	trans-1,3-Dichloropropene	10	BQL
22	Ethylbenzene	20	750
23	Methylene chloride	20	61B
24	1,1,2,2-Tetrachloroethane	20	BQL
25	Tetrachloroethene	20	BQL
26	Toluene	20	BQL
27	1,1,1-Trichloroethane	20	BQL
28	1,1,2-Trichloroethane	20	BQL
29	Trichloroethene	20	BQL
30	Trichlorofluoromethane	20	BQL
31	Vinyl chloride	40	BQL

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**IEA**

An Aquarion Company

Analysis Report: EPA Method 8260A
(PAGE 2 OF 2 PAGES)Client: Bart Paulding
Project: 952132IEA ID: P100-013-01
Sample: MW-5

Other TCL Compounds *

Number	Compound	PQL (ug/L)	Result (ug/L)
32	Acetone	400	BQL
33	2-Butanone	400	BQL
34	n-Butylbenzene	20	BQL
35	s-Butylbenzene	20	BQL
36	t-Butylbenzene	20	BQL
37	Carbon disulfide	20	47
38	2-Chlorotoluene	20	BQL
39	4-Chlorotoluene	20	BQL
40	1,2-Dibromoethane	20	BQL
41	2-Hexanone	200	BQL
42	Hexachlorobutadiene	12	BQL
43	Isopropylbenzene	20	BQL
44	p-Isopropyltoluene	20	BQL
45	4-Methyl-2-pentanone	200	BQL
46	Methyl-t-butyl ether	20	BQL
47	Naphthalene	200	BQL
48	n-Propylbenzene	20	BQL
49	Styrene	20	BQL
50	1,1,1,2-Tetrachloroethane	20	BQL
51	1,2,3-Trichlorobenzene	20	BQL
52	1,2,4-Trichlorobenzene	20	BQL
53	1,2,4-Trimethylbenzene	20	48
54	1,3,5-Trimethylbenzene	20	BQL
55	Vinyl acetate	200	BQL
56	Xylenes	20	92

Surrogate Standard Recovery:

1,2-Dichloroethane-d4	97 %
Toluene-d8	113 %
Bromofluorobenzene	94 %

COMMENTS:

BQL = Below Quantitation Limit.

PQL = Practical Quantitation Limit.

Quantitation limit elevated due to sample dilution prior to analysis.

Sample diluted due to high concentration of target compounds present.

B = Compound in blank

Doc# MSF11801.MA

**IEA**

An Aquarion Company

Analysis Report: EPA Method 8260A
(PAGE 1 OF 2 PAGES)

Client: Bart Paulding
Project: 952132
Report Date: 06/16/95
Collected: 06/01/95
Received: 06/01/95
Analyzed: 06/15/95
By: GMT

IEA ID: P100-013-03
Sample: MW-6
Type: Water
Container: VOA

Dilution Factor: 40

Priority Pollutant Compounds

Number	Compound	PQL (ug/L)	Result (ug/L)
1	Benzene	40	BQL
2	Bromodichloromethane	40	BQL
3	Bromoform	40	BQL
4	Bromomethane	80	BQL
5	Carbon tetrachloride	40	BQL
6	Chlorobenzene	40	BQL
7	Chloroethane	80	BQL
8	2-Chloroethylvinyl ether	40	BQL
9	Chloroform	40	BQL
10	Chloromethane	80	BQL
11	Dibromochloromethane	40	BQL
12	1,2-Dichlorobenzene	40	BQL
13	1,3-Dichlorobenzene	40	BQL
14	1,4-Dichlorobenzene	40	BQL
15	1,1-Dichloroethane	40	BQL
16	1,2-Dichloroethane	40	BQL
17	1,1-Dichloroethene	40	BQL
18	1,2-Dichloroethenes (Total)	40	470
19	1,2-Dichloropropane	40	BQL
20	cis-1,3-Dichloropropene	20	BQL
21	trans-1,3-Dichloropropene	20	BQL
22	Ethylbenzene	40	1,600
23	Methylene chloride	40	210B
24	1,1,2,2-Tetrachloroethane	40	BQL
25	Tetrachloroethene	40	BQL
26	Toluene	40	40
27	1,1,1-Trichloroethane	40	BQL
28	1,1,2-Trichloroethane	40	BQL
29	Trichloroethene	40	BQL
30	Trichlorofluoromethane	40	BQL
31	Vinyl chloride	80	210

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IEA

An Aquarion Company

Analysis Report: EPA Method 8260A
(PAGE 2 OF 2 PAGES)

Client: Bart Paulding
Project: 952132

IEA ID: P100-013-03
Sample: MW-6

Other TCL Compounds *

Number	Compound	PQL (ug/L)	Result (ug/L)
32	Acetone	800	BQL
33	2-Butanone	800	BQL
34	n-Butylbenzene	40	BQL
35	s-Butylbenzene	40	BQL
36	t-Butylbenzene	40	BQL
37	Carbon disulfide	40	BQL
38	2-Chlorotoluene	40	BQL
39	4-Chlorotoluene	40	BQL
40	1,2-Dibromoethane	40	BQL
41	2-Hexanone	400	BQL
42	Hexachlorobutadiene	24	BQL
43	Isopropylbenzene	40	BQL
44	p-Isopropyltoluene	40	BQL
45	4-Methyl-2-pentanone	400	BQL
46	Methyl-t-butyl ether	40	BQL
47	Naphthalene	400	BQL
48	n-Propylbenzene	40	BQL
49	Styrene	40	BQL
50	1,1,1,2-Tetrachloroethane	40	BQL
51	1,2,3-Trichlorobenzene	40	BQL
52	1,2,4-Trichlorobenzene	40	BQL
53	1,2,4-Trimethylbenzene	40	72
54	1,3,5-Trimethylbenzene	40	BQL
55	Vinyl acetate	400	BQL
56	Xylenes	40	150

Surrogate Standard Recovery:

1,2-Dichloroethane-d4	104 %
Toluene-d8	114 %
Bromofluorobenzene	108 %

COMMENTS:

BQL = Below Quantitation Limit.

PQL = Practical Quantitation Limit.

Quantitation limit elevated due to sample dilution prior to analysis.
Sample diluted due to high concentration of target compounds present.

B = Compound in blank

Doc# MSF11801.MA

**IEA**

An Aquarion Company

Analysis Report: EPA Method 8260A
(PAGE 1 OF 2 PAGES)

Client: Bart Paulding
Project: 952132
Report Date: 06/16/95
Collected: 06/01/95
Received: 06/01/95
Analyzed: 06/09/95
By: GMT

IEA ID: P100-013-04
Sample: MW-7
Type: Water
Container: VOA

Dilution Factor: 20

Priority Pollutant Compounds

Number	Compound	PQL (ug/L)	Result (ug/L)
1	Benzene	20	310
2	Bromodichloromethane	20	BQL
3	Bromoform	20	BQL
4	Bromomethane	40	BQL
5	Carbon tetrachloride	20	BQL
6	Chlorobenzene	20	65
7	Chloroethane	40	BQL
8	2-Chloroethylvinyl ether	20	BQL
9	Chloroform	20	BQL
10	Chloromethane	40	BQL
11	Dibromochloromethane	20	BQL
12	1,2-Dichlorobenzene	20	BQL
13	1,3-Dichlorobenzene	20	BQL
14	1,4-Dichlorobenzene	20	BQL
15	1,1-Dichloroethane	20	BQL
16	1,2-Dichloroethane	20	BQL
17	1,1-Dichloroethene	20	BQL
18	1,2-Dichloroethenes (Total)	20	BQL
19	1,2-Dichloropropane	20	BQL
20	cis-1,3-Dichloropropene	10	BQL
21	trans-1,3-Dichloropropene	10	BQL
22	Ethylbenzene	20	BQL
23	Methylene chloride	20	71B
24	1,1,2,2-Tetrachloroethane	20	BQL
25	Tetrachloroethene	20	BQL
26	Toluene	20	BQL
27	1,1,1-Trichloroethane	20	BQL
28	1,1,2-Trichloroethane	20	BQL
29	Trichloroethene	20	BQL
30	Trichlorofluoromethane	20	BQL
31	Vinyl chloride	40	BQL

Doc# MSF11801.MA

**IEA**

An Aquanon Company

Analysis Report: EPA Method 8260A
(PAGE 2 OF 2 PAGES)Client: Bart Paulding
Project: 952132IEA ID: P100-013-04
Sample: MW-7

Other TCL Compounds *

Number	Compound	PQL (ug/L)	Result (ug/L)
32	Acetone	400	BQL
33	2-Butanone	400	BQL
34	n-Butylbenzene	20	BQL
35	s-Butylbenzene	20	BQL
36	t-Butylbenzene	20	BQL
37	Carbon disulfide	20	BQL
38	2-Chlorotoluene	20	BQL
39	4-Chlorotoluene	20	BQL
40	1,2-Dibromoethane	20	BQL
41	2-Hexanone	200	BQL
42	Hexachlorobutadiene	12	BQL
43	Isopropylbenzene	20	BQL
44	p-Isopropyltoluene	20	BQL
45	4-Methyl-2-pentanone	200	BQL
46	Methyl-t-butyl ether	20	BQL
47	Naphthalene	200	BQL
48	n-Propylbenzene	20	BQL
49	Styrene	20	BQL
50	1,1,1,2-Tetrachloroethane	20	BQL
51	1,2,3-Trichlorobenzene	20	BQL
52	1,2,4-Trichlorobenzene	20	BQL
53	1,2,4-Trimethylbenzene	20	BQL
54	1,3,5-Trimethylbenzene	20	BQL
55	Vinyl acetate	200	BQL
56	Xylenes	20	BQL

Surrogate Standard Recovery:

1,2-Dichloroethane-d4	107 %
Toluene-d8	127 %
Bromofluorobenzene	92 %

COMMENTS:

BQL = Below Quantitation Limit.

PQL = Practical Quantitation Limit.

Quantitation limit elevated due to sample dilution prior to analysis.

Sample diluted due to high concentration of target compounds present.

B = Compound in blank

Doc# MSF11801.MA

**IEA**

An Aquanor Company

Analysis Report: EPA Method 8260A
(PAGE 1 OF 2 PAGES)

Client: Bart Paulding
Project: 952132
Report Date: 06/16/95
Collected: 06/01/95
Received: 06/01/95
Analyzed: 06/08/95
By: MEW

IEA ID: P100-013-05
Sample: TRIP BLANK
Type: Water
Container: VOA

Dilution Factor: 1

Priority Pollutant Compounds

Number	Compound	PQL (ug/L)	Result (ug/L)
1	Benzene	1	BQL
2	Bromodichloromethane	1	BQL
3	Bromoform	1	BQL
4	Bromomethane	2	BQL
5	Carbon tetrachloride	1	BQL
6	Chlorobenzene	1	BQL
7	Chloroethane	2	BQL
8	2-Chloroethylvinyl ether	1	BQL
9	Chloroform	1	BQL
10	Chloromethane	2	BQL
11	Dibromochloromethane	1	BQL
12	1,2-Dichlorobenzene	1	BQL
13	1,3-Dichlorobenzene	1	BQL
14	1,4-Dichlorobenzene	1	BQL
15	1,1-Dichloroethane	1	BQL
16	1,2-Dichloroethane	1	BQL
17	1,1-Dichloroethene	1	BQL
18	1,2-Dichloroethenes (Total)	1	BQL
19	1,2-Dichloropropane	1	BQL
20	cis-1,3-Dichloropropene	0.5	BQL
21	trans-1,3-Dichloropropene	0.5	BQL
22	Ethylbenzene	1	BQL
23	Methylene chloride	1	4B
24	1,1,2,2-Tetrachloroethane	1	BQL
25	Tetrachloroethene	1	BQL
26	Toluene	1	BQL
27	1,1,1-Trichloroethane	1	BQL
28	1,1,2-Trichloroethane	1	BQL
29	Trichloroethene	1	BQL
30	Trichlorofluoromethane	1	BQL
31	Vinyl chloride	2	BQL

Doc# MSF11801.MA

**IEA**

An Aquanon Company

Analysis Report: EPA Method 8260A
(PAGE 2 OF 2 PAGES)Client: Bart Paulding
Project: 952132IEA ID: P100-013-05
Sample: TRIP BLANK

Other TCL Compounds *

Number	Compound	PQL (ug/L)	Result (ug/L)
32	Acetone	20	BQL
33	2-Butanone	20	BQL
34	n-Butylbenzene	1	BQL
35	s-Butylbenzene	1	BQL
36	t-Butylbenzene	1	BQL
37	Carbon disulfide	1	BQL
38	2-Chlorotoluene	1	BQL
39	4-Chlorotoluene	1	BQL
40	1,2-Dibromoethane	1	BQL
41	2-Hexanone	10	BQL
42	Hexachlorobutadiene	0.6	BQL
43	Isopropylbenzene	1	BQL
44	p-Isopropyltoluene	1	BQL
45	4-Methyl-2-pentanone	10	BQL
46	Methyl-t-butyl ether	1	BQL
47	Naphthalene	10	BQL
48	n-Propylbenzene	1	BQL
49	Styrene	1	BQL
50	1,1,1,2-Tetrachloroethane	1	BQL
51	1,2,3-Trichlorobenzene	1	BQL
52	1,2,4-Trichlorobenzene	1	BQL
53	1,2,4-Trimethylbenzene	1	BQL
54	1,3,5-Trimethylbenzene	1	BQL
55	Vinyl acetate	10	BQL
56	Xylenes	1	BQL

Surrogate Standard Recovery:

1,2-Dichloroethane-d4	98 %
Toluene-d8	116 %
Bromofluorobenzene	84 %

COMMENTS:

BQL = Below Quantitation Limit.
PQL = Practical Quantitation Limit.
B = Compound in blank

Doc# MSF11801.MA

**IEA**

An Aquarion Company

Analysis Report: EPA Method 8260A
(PAGE 1 OF 2 PAGES)Client:
Project:
Report Date: 06/16/95
Collected:
Received:
Analyzed: 06/08/95
By: MEWIEA ID: Method Blank (06/08)
Sample:
Type: Water
Container:

Dilution Factor: 1

Priority Pollutant Compounds

Number	Compound	PQL (ug/L)	Result (ug/L)
1	Benzene	1	BQL
2	Bromodichloromethane	1	BQL
3	Bromoform	1	BQL
4	Bromomethane	2	BQL
5	Carbon tetrachloride	1	BQL
6	Chlorobenzene	1	BQL
7	Chloroethane	2	BQL
8	2-Chloroethylvinyl ether	1	BQL
9	Chloroform	1	BQL
10	Chloromethane	2	BQL
11	Dibromochloromethane	1	BQL
12	1,2-Dichlorobenzene	1	BQL
13	1,3-Dichlorobenzene	1	BQL
14	1,4-Dichlorobenzene	1	BQL
15	1,1-Dichloroethane	1	BQL
16	1,2-Dichloroethane	1	BQL
17	1,1-Dichloroethene	1	BQL
18	1,2-Dichloroethenes (Total)	1	BQL
19	1,2-Dichloropropane	1	BQL
20	cis-1,3-Dichloropropene	0.5	BQL
21	trans-1,3-Dichloropropene	0.5	BQL
22	Ethylbenzene	1	BQL
23	Methylene chloride	1	3
24	1,1,2,2-Tetrachloroethane	1	BQL
25	Tetrachloroethene	1	BQL
26	Toluene	1	BQL
27	1,1,1-Trichloroethane	1	BQL
28	1,1,2-Trichloroethane	1	BQL
29	Trichloroethene	1	BQL
30	Trichlorofluoromethane	1	BQL
31	Vinyl chloride	2	BQL

Doc# MSF11801.MA

**IEA**

An Aquarion Company

Analysis Report: EPA Method 8260A
(PAGE 2 OF 2 PAGES)Client:
Project:IEA ID: Method Blank (06/08)
Sample:

Other TCL Compounds *

Number	Compound	PQL (ug/L)	Result (ug/L)
32	Acetone	20	BQL
33	2-Butanone	20	BQL
34	n-Butylbenzene	1	BQL
35	s-Butylbenzene	1	BQL
36	t-Butylbenzene	1	BQL
37	Carbon disulfide	1	BQL
38	2-Chlorotoluene	1	BQL
39	4-Chlorotoluene	1	BQL
40	1,2-Dibromoethane	1	BQL
41	2-Hexanone	10	BQL
42	Hexachlorobutadiene	0.6	BQL
43	Isopropylbenzene	1	BQL
44	p-Isopropyltoluene	1	BQL
45	4-Methyl-2-pentanone	10	BQL
46	Methyl-t-butyl ether	1	BQL
47	Naphthalene	10	BQL
48	n-Propylbenzene	1	BQL
49	Styrene	1	BQL
50	1,1,1,2-Tetrachloroethane	1	BQL
51	1,2,3-Trichlorobenzene	1	BQL
52	1,2,4-Trichlorobenzene	1	BQL
53	1,2,4-Trimethylbenzene	1	BQL
54	1,3,5-Trimethylbenzene	1	BQL
55	Vinyl acetate	10	BQL
56	Xylenes	1	BQL

Surrogate Standard Recovery:

1,2-Dichloroethane-d4	103 %
Toluene-d8	119 %
Bromofluorobenzene	93 %

COMMENTS:

BQL = Below Quantitation Limit.

PQL = Practical Quantitation Limit.

Corresponding Samples: P100-013-02, P100-013-05

Doc# MSF11801.MA



IEA

An Aquanon Company

Analysis Report: EPA Method 8260A
(PAGE 1 OF 2 PAGES)

Client:
Project:
Report Date: 06/16/95
Collected:
Received:
Analyzed: 06/09/95
By: GMT

IEA ID: Method Blank (06/09)
Sample:
Type: Water
Container:

Dilution Factor: 1

Priority Pollutant Compounds

Number	Compound	PQL (ug/L)	Result (ug/L)
1	Benzene	1	BQL
2	Bromodichloromethane	1	BQL
3	Bromoform	1	BQL
4	Bromomethane	2	BQL
5	Carbon tetrachloride	1	BQL
6	Chlorobenzene	1	BQL
7	Chloroethane	2	BQL
8	2-Chloroethylvinyl ether	1	BQL
9	Chloroform	1	BQL
10	Chloromethane	2	BQL
11	Dibromochloromethane	1	BQL
12	1,2-Dichlorobenzene	1	BQL
13	1,3-Dichlorobenzene	1	BQL
14	1,4-Dichlorobenzene	1	BQL
15	1,1-Dichloroethane	1	BQL
16	1,2-Dichloroethane	1	BQL
17	1,1-Dichloroethene	1	BQL
18	1,2-Dichloroethenes (Total)	1	BQL
19	1,2-Dichloropropane	1	BQL
20	cis-1,3-Dichloropropene	0.5	BQL
21	trans-1,3-Dichloropropene	0.5	BQL
22	Ethylbenzene	1	BQL
23	Methylene chloride	1	2
24	1,1,2,2-Tetrachloroethane	1	BQL
25	Tetrachloroethene	1	BQL
26	Toluene	1	BQL
27	1,1,1-Trichloroethane	1	BQL
28	1,1,2-Trichloroethane	1	BQL
29	Trichloroethene	1	BQL
30	Trichlorofluoromethane	1	BQL
31	Vinyl chloride	2	BQL

Doc# MSF11801.MA

**IEA**

An Aquarion Company

Analysis Report: EPA Method 8260A
(PAGE 2 OF 2 PAGES)Client:
Project:IEA ID: Method Blank (06/09)
Sample:

Other TCL Compounds *

Number	Compound	PQL (ug/L)	Result (ug/L)
32	Acetone	20	BQL
33	2-Butanone	20	BQL
34	n-Butylbenzene	1	BQL
35	s-Butylbenzene	1	BQL
36	t-Butylbenzene	1	BQL
37	Carbon disulfide	1	BQL
38	2-Chlorotoluene	1	BQL
39	4-Chlorotoluene	1	BQL
40	1,2-Dibromoethane	1	BQL
41	2-Hexanone	10	BQL
42	Hexachlorobutadiene	0.6	BQL
43	Isopropylbenzene	1	BQL
44	p-Isopropyltoluene	1	BQL
45	4-Methyl-2-pentanone	10	BQL
46	Methyl-t-butyl ether	1	BQL
47	Naphthalene	10	BQL
48	n-Propylbenzene	1	BQL
49	Styrene	1	BQL
50	1,1,1,2-Tetrachloroethane	1	BQL
51	1,2,3-Trichlorobenzene	1	BQL
52	1,2,4-Trichlorobenzene	1	BQL
53	1,2,4-Trimethylbenzene	1	BQL
54	1,3,5-Trimethylbenzene	1	BQL
55	Vinyl acetate	10	BQL
56	Xylenes	1	BQL

Surrogate Standard Recovery:

1,2-Dichloroethane-d4	110 %
Toluene-d8	115 %
Bromofluorobenzene	93 %

COMMENTS:

BQL = Below Quantitation Limit.

PQL = Practical Quantitation Limit.

Corresponding Samples: P100-013-01, P100-013-04

Doc# MSF11801.MA

**IEA**

An Aquarion Company

Analysis Report: EPA Method 8260A
(PAGE 1 OF 2 PAGES)Client:
Project:
Report Date: 06/16/95
Collected:
Received:
Analyzed: 06/15/95
By: GMTIEA ID: Method Blank (06/15)
Sample:
Type: Water
Container:

Dilution Factor: 1

Priority Pollutant Compounds

Number	Compound	PQL (ug/L)	Result (ug/L)
1	Benzene	1	BQL
2	Bromodichloromethane	1	BQL
3	Bromoform	1	BQL
4	Bromomethane	2	BQL
5	Carbon tetrachloride	1	BQL
6	Chlorobenzene	1	BQL
7	Chloroethane	2	BQL
8	2-Chloroethylvinyl ether	1	BQL
9	Chloroform	1	BQL
10	Chloromethane	2	BQL
11	Dibromochloromethane	1	BQL
12	1,2-Dichlorobenzene	1	BQL
13	1,3-Dichlorobenzene	1	BQL
14	1,4-Dichlorobenzene	1	BQL
15	1,1-Dichloroethane	1	BQL
16	1,2-Dichloroethane	1	BQL
17	1,1-Dichloroethene	1	BQL
18	1,2-Dichloroethenes (Total)	1	BQL
19	1,2-Dichloropropane	1	BQL
20	cis-1,3-Dichloropropene	0.5	BQL
21	trans-1,3-Dichloropropene	0.5	BQL
22	Ethylbenzene	1	BQL
23	Methylene chloride	1	3
24	1,1,2,2-Tetrachloroethane	1	BQL
25	Tetrachloroethene	1	BQL
26	Toluene	1	BQL
27	1,1,1-Trichloroethane	1	BQL
28	1,1,2-Trichloroethane	1	BQL
29	Trichloroethene	1	BQL
30	Trichlorofluoromethane	1	BQL
31	Vinyl chloride	2	BQL

Doc# MSF11801.MA



IEA

An Aquarion Company

Analysis Report: EPA Method 8260A
(PAGE 2 OF 2 PAGES)

Client:
Project:

IEA ID: Method Blank (06/15)
Sample:

Other TCL Compounds *

Number	Compound	PQL (ug/L)	Result (ug/L)
32	Acetone	20	BQL
33	2-Butanone	20	BQL
34	n-Butylbenzene	1	BQL
35	s-Butylbenzene	1	BQL
36	t-Butylbenzene	1	BQL
37	Carbon disulfide	1	BQL
38	2-Chlorotoluene	1	BQL
39	4-Chlorotoluene	1	BQL
40	1,2-Dibromoethane	1	BQL
41	2-Hexanone	10	BQL
42	Hexachlorobutadiene	0.6	BQL
43	Isopropylbenzene	1	BQL
44	p-Isopropyltoluene	1	BQL
45	4-Methyl-2-pentanone	10	BQL
46	Methyl-t-butyl ether	1	BQL
47	Naphthalene	10	BQL
48	n-Propylbenzene	1	BQL
49	Styrene	1	BQL
50	1,1,1,2-Tetrachloroethane	1	BQL
51	1,2,3-Trichlorobenzene	1	BQL
52	1,2,4-Trichlorobenzene	1	BQL
53	1,2,4-Trimethylbenzene	1	BQL
54	1,3,5-Trimethylbenzene	1	BQL
55	Vinyl acetate	10	BQL
56	Xylenes	1	BQL

Surrogate Standard Recovery:

1,2-Dichloroethane-d4	99 %
Toluene-d8	120 %
Bromofluorobenzene	98 %

COMMENTS:

BQL = Below Quantitation Limit.

PQL = Practical Quantitation Limit.

Corresponding Samples: P100-013-03

Doc# MSF11801.MA

**IEA**

An Aquaron Company

Analysis Report: EPA Method 8270A
(PAGE 1 OF 2 PAGES)

Client: Bart Paulding
Project: 952132
Report Date: 06/16/95
Collected: 06/01/95
Received: 06/01/95
Extracted: 06/06/95
Analyzed: 06/07/95
By: MEW

IEA ID: P100-013-01
Sample: MW-5
Type: Water
Container: Glass

Dilution Factor: 1

Number	Compound	PQL (ug/L)	Result (ug/L)
1	Acenaphthene	10	BQL
2	Acenaphthylene	10	BQL
3	Aniline	50	BQL
4	Anthracene	10	BQL
5	Benzoic acid	50	BQL
6	Benzo(a)anthracene	10	BQL
7	Benzo(b)fluoranthene	10	BQL
8	Benzo(k)fluoranthene	10	BQL
9	Benzo(g,h,i)perylene	10	BQL
10	Benzo(a)pyrene	10	BQL
11	Benzyl alcohol	20	BQL
12	bis(2-Chloroethoxy)methane	10	BQL
13	bis(2-Chloroethyl)ether	10	BQL
14	bis(2-Chloroisopropyl)ether	10	BQL
15	bis(2-Ethylhexyl)phthalate	10	35
16	4-Bromophenyl phenyl ether	10	BQL
17	Benzyl butyl phthalate	10	BQL
18	4-Chloroaniline	20	BQL
19	2-Chloronaphthalene	10	BQL
20	4-Chloro-3-methylphenol	20	BQL
21	2-Chlorophenol	10	BQL
22	4-Chlorophenyl phenyl ether	10	BQL
23	Chrysene	10	BQL
24	Dibenzo(a,h)anthracene	10	BQL
25	Dibenzofuran	10	BQL
26	Di-n-butyl phthalate	10	BQL
27	1,3-Dichlorobenzene	10	BQL
28	1,4-Dichlorobenzene	10	BQL
29	1,2-Dichlorobenzene	10	BQL
30	1,2-Diphenylhydrazine	10	BQL
31	3,3'-Dichlorobenzidine	20	BQL
32	2,4-Dichlorophenol	10	BQL
33	Diethyl phthalate	10	BQL
34	2,4-Dimethylphenol	10	BQL
35	Dimethyl phthalate	10	BQL
36	2-Methyl-4,6-dinitrophenol	50	BQL
37	2,4-Dinitrophenol	50	BQL
38	2,4-Dinitrotoluene	10	BQL



IEA

An Aquarion Company

Analysis Report: EPA Method 8270A
(PAGE 2 OF 2 PAGES)

Client: Bart Paulding
Project: 952132

IEA ID: P100-013-01
Sample: MW-5

Number	Compound	PQL (ug/L)	Result (ug/L)
39	2,6-Dinitrotoluene	10	BQL
40	Di-n-octylphthalate	10	BQL
41	Fluoranthene	10	BQL
42	Fluorene	10	BQL
43	Hexachlorobenzene	10	BQL
44	Hexachlorobutadiene	10	BQL
45	Hexachlorocyclopentadiene	10	BQL
46	Hexachloroethane	10	BQL
47	Indeno(1,2,3-cd)pyrene	10	BQL
48	Isophorone	10	BQL
49	2-Methylnaphthalene	10	19
50	2-Methylphenol (o-cresol)	10	BQL
51	4-Methylphenol (p-cresol)	10	BQL
52	Naphthalene	10	19
53	2-Nitroaniline	50	BQL
54	3-Nitroaniline	50	BQL
55	4-Nitroaniline	50	BQL
56	Nitrobenzene	10	BQL
57	2-Nitrophenol	10	BQL
58	4-Nitrophenol	50	BQL
59	N-Nitroso-di-n-propylamine	10	BQL
60	N-Nitrosodiphenylamine	10	BQL
61	Pentachlorophenol	50	BQL
62	Phenanthrene	10	BQL
63	Phenol	10	BQL
64	Pyrene	10	BQL
65	1,2,4-Trichlorobenzene	10	BQL
66	2,4,5-Trichlorophenol	10	BQL
67	2,4,6-Trichlorophenol	10	BQL

Surrogate Standard Recovery:

2-Fluorophenol	63 %
Phenol-d6	75 %
Nitrobenzene-d5	76 %
2-Fluorobiphenyl	79 %
2,4,6-Tribromophenol	99 %
Terphenyl-d14	78 %

Comments:

PQL = Practical quantitation limit.
BQL = Below quantitation limit.



IEA

An Aquarion Company

Analysis Report: EPA Method 8270A
(PAGE 1 OF 2 PAGES)

Client: Bart Paulding
Project: 952132
Report Date: 06/16/95
Collected: 06/01/95
Received: 06/01/95
Extracted: 06/06/95
Analyzed: 06/07/95
By: MEW

IEA ID: P100-013-02
Sample: MW-4
Type: Water
Container: Glass

Dilution Factor: 1

Number	Compound	PQL (ug/L)	Result (ug/L)
1	Acenaphthene	10	BQL
2	Acenaphthylene	10	BQL
3	Aniline	50	BQL
4	Anthracene	10	BQL
5	Benzoic acid	50	BQL
6	Benzo(a)anthracene	10	BQL
7	Benzo(b)fluoranthene	10	BQL
8	Benzo(k)fluoranthene	10	BQL
9	Benzo(g,h,i)perylene	10	BQL
10	Benzo(a)pyrene	10	BQL
11	Benzyl alcohol	20	BQL
12	bis(2-Chloroethoxy)methane	10	BQL
13	bis(2-Chloroethyl)ether	10	BQL
14	bis(2-Chloroisopropyl)ether	10	BQL
15	bis(2-Ethylhexyl)phthalate	10	BQL
16	4-Bromophenyl phenyl ether	10	BQL
17	Benzyl butyl phthalate	10	BQL
18	4-Chloroaniline	20	BQL
19	2-Chloronaphthalene	10	BQL
20	4-Chloro-3-methylphenol	20	BQL
21	2-Chlorophenol	10	BQL
22	4-Chlorophenyl phenyl ether	10	BQL
23	Chrysene	10	BQL
24	Dibenzo(a,h)anthracene	10	BQL
25	Dibenzofuran	10	BQL
26	Di-n-butyl phthalate	10	BQL
27	1,3-Dichlorobenzene	10	BQL
28	1,4-Dichlorobenzene	10	BQL
29	1,2-Dichlorobenzene	10	BQL
30	1,2-Diphenylhydrazine	10	BQL
31	3,3'-Dichlorobenzidine	20	BQL
32	2,4-Dichlorophenol	10	BQL
33	Diethyl phthalate	10	BQL
34	2,4-Dimethylphenol	10	BQL
35	Dimethyl phthalate	10	BQL
36	2-Methyl-4,6-dinitrophenol	50	BQL
37	2,4-Dinitrophenol	50	BQL
38	2,4-Dinitrotoluene	10	BQL

**IEA**

An Aquanon Company

Analysis Report: EPA Method 8270A
(PAGE 2 OF 2 PAGES)Client: Bart Paulding
Project: 952132IEA ID: F100-013-02
Sample: MW-4

Number	Compound	PQL (ug/L)	Result (ug/L)
39	2,6-Dinitrotoluene	10	BQL
40	Di-n-octylphthalate	10	BQL
41	Fluoranthene	10	BQL
42	Fluorene	10	BQL
43	Hexachlorobenzene	10	BQL
44	Hexachlorobutadiene	10	BQL
45	Hexachlorocyclopentadiene	10	BQL
46	Hexachloroethane	10	BQL
47	Indeno (1,2,3-cd) pyrene	10	BQL
48	Isophorone	10	BQL
49	2-Methylnaphthalene	10	BQL
50	2-Methylphenol (o-cresol)	10	BQL
51	4-Methylphenol (p-cresol)	10	BQL
52	Naphthalene	10	BQL
53	2-Nitroaniline	50	BQL
54	3-Nitroaniline	50	BQL
55	4-Nitroaniline	50	BQL
56	Nitrobenzene	10	BQL
57	2-Nitrophenol	10	BQL
58	4-Nitrophenol	50	BQL
59	N-Nitroso-di-n-propylamine	10	BQL
60	N-Nitrosodiphenylamine	10	BQL
61	Pentachlorophenol	50	BQL
62	Phenanthrene	10	BQL
63	Phenol	10	BQL
64	Pyrene	10	BQL
65	1,2,4-Trichlorobenzene	10	BQL
66	2,4,5-Trichlorophenol	10	BQL
67	2,4,6-Trichlorophenol	10	BQL

Surrogate Standard Recovery:

2-Fluorophenol	65 %
Phenol-d6	70 %
Nitrobenzene-d5	69 %
2-Fluorobiphenyl	69 %
2,4,6-Tribromophenol	91 %
Terphenyl-d14	68 %

Comments:

PQL = Practical quantitation limit.
•BQL = Below quantitation limit.

**IEA**

An Aquarion Company

Analysis Report: EPA Method 8270A
(PAGE 1 OF 2 PAGES)

Client: Bart Paulding
Project: 952132
Report Date: 06/16/95
Collected: 06/01/95
Received: 06/01/95
Extracted: 06/06/95
Analyzed: 06/07/95
By: MEW

IEA ID: P100-013-04
Sample: MW-7
Type: Water
Container: Glass

Dilution Factor: 1

Number	Compound	PQL (ug/L)	Result (ug/L)
1	Acenaphthene	10	BQL
2	Acenaphthylene	10	BQL
3	Aniline	50	BQL
4	Anthracene	10	BQL
5	Benzoic acid	50	BQL
6	Benzo(a)anthracene	10	BQL
7	Benzo(b)fluoranthene	10	BQL
8	Benzo(k)fluoranthene	10	BQL
9	Benzo(g,h,i)perylene	10	BQL
10	Benzo(a)pyrene	10	BQL
11	Benzyl alcohol	20	BQL
12	bis(2-Chloroethoxy)methane	10	BQL
13	bis(2-Chloroethyl)ether	10	BQL
14	bis(2-Chloroisopropyl)ether	10	BQL
15	bis(2-Ethylhexyl)phthalate	10	18
16	4-Bromophenyl phenyl ether	10	BQL
17	Benzyl butyl phthalate	10	BQL
18	4-Chloroaniline	20	BQL
19	2-Chloronaphthalene	10	BQL
20	4-Chloro-3-methylphenol	20	BQL
21	2-Chlorophenol	10	BQL
22	4-Chlorophenyl phenyl ether	10	BQL
23	Chrysene	10	BQL
24	Dibenzo(a,h)anthracene	10	BQL
25	Dibenzofuran	10	BQL
26	Di-n-butyl phthalate	10	BQL
27	1,3-Dichlorobenzene	10	BQL
28	1,4-Dichlorobenzene	10	BQL
29	1,2-Dichlorobenzene	10	BQL
30	1,2-Diphenylhydrazine	10	BQL
31	3,3'-Dichlorobenzidine	20	BQL
32	2,4-Dichlorophenol	10	BQL
33	Diethyl phthalate	10	BQL
34	2,4-Dimethylphenol	10	BQL
35	Dimethyl phthalate	10	BQL
36	2-Methyl-4,6-dinitrophenol	50	BQL
37	2,4-Dinitrophenol	50	BQL
38	2,4-Dinitrotoluene	10	BQL



IEA

An Aquarion Company

Analysis Report: EPA Method 8270A (PAGE 2 OF 2 PAGES)

Client: Bart Paulding
Project: 952132

IEA ID: P100-013-04
Sample: MW-7

Number	Compound	PQL (ug/L)	Result (ug/L)
39	2,6-Dinitrotoluene	10	BQL
40	Di-n-octylphthalate	10	BQL
41	Fluoranthene	10	BQL
42	Fluorene	10	BQL
43	Hexachlorobenzene	10	BQL
44	Hexachlorobutadiene	10	BQL
45	Hexachlorocyclopentadiene	10	BQL
46	Hexachloroethane	10	BQL
47	Indeno (1,2,3-cd) pyrene	10	BQL
48	Isophorone	10	BQL
49	2-Methylnaphthalene	10	BQL
50	2-Methylphenol (o-cresol)	10	BQL
51	4-Methylphenol (p-cresol)	10	14
52	Naphthalene	10	BQL
53	2-Nitroaniline	50	BQL
54	3-Nitroaniline	50	BQL
55	4-Nitroaniline	50	BQL
56	Nitrobenzene	10	BQL
57	2-Nitrophenol	10	BQL
58	4-Nitrophenol	50	BQL
59	N-Nitroso-di-n-propylamine	10	BQL
60	N-Nitrosodiphenylamine	10	BQL
61	Pentachlorophenol	50	BQL
62	Phenanthrene	10	BQL
63	Phenol	10	17
64	Pyrene	10	BQL
65	1,2,4-Trichlorobenzene	10	BQL
66	2,4,5-Trichlorophenol	10	BQL
67	2,4,6-Trichlorophenol	10	BQL

Surrogate Standard Recovery:

2-Fluorophenol	59 %
Phenol-d6	59 %
Nitrobenzene-d5	67 %
2-Fluorobiphenyl	63 %
2,4,6-Tribromophenol	64 %
Terphenyl-d14	53 %

Comments:

PQL = Practical quantitation limit.
BQL = Below quantitation limit.

ATTACHMENT J

ROY BROS HAULERS

**SEDIMENT SAMPLE ANALYTICAL RESULTS
ROY F. WESTON, INC.**

Samples collected 19 December 1995

SITE: Roy Brothers Haulers
CASE: 24329 SDG: AKZ32
LABORATORY: EnviroSystems, Inc.
SAMPLE NUMBER:
SAMPLE LOCATION:
LABORATORY NUMBER:

TABLE 1
VOLATILE SOIL ANALYSIS - LOW LEVEL
ug/kg

		AKZ32	AKZ33	AKZ34	AKZ35	AKZ36	AKZ37	AKZ38
SAMPLE NUMBER:		SD-01	SD-02	SD-03	SD-04	SD-05	SD-07	SD-08
LABORATORY NUMBER:		95123095	95123096	95123097	95123098	95123099	95123100	95123101
COMPOUND	CRQL							
Chloromethane	10	14 U	27 U	22 U	22 U	25 U	29 U	40 U
Bromomethane	10	14 U	27 U	22 U	22 U	25 U	29 U	40 U
Vinyl Chloride	10	14 U	27 U	22 U	22 U	25 U	29 U	40 U
Chloroethane	10	14 U	27 U	22 U	22 U	25 U	29 U	40 U
Methylene Chloride	10	14 U	27 U	22 U	22 U	25 U	29 U	40 U
Acetone	10	200 J	2400 J*	36 J	22 UJ	1400 J*	35 J	250 J
Carbon Disulfide	10	14 U	27 U	48 J	22 UJ	25 U	29 U	40 U
1,1-Dichloroethene	10	14 U	27 U	22 U	22 U	25 U	29 U	40 U
1,1-Dichloroethane	10	14 U	27 U	22 U	22 U	25 U	29 U	40 U
1,2-Dichloroethene (Total)	10	14 U	27 U	22 U	22 U	25 U	29 U	40 U
Chloroform	10	14 U	27 U	22 U	22 U	25 U	29 U	40 U
1,2-Dichloroethane	10	14 U	27 U	22 U	22 U	25 U	29 U	40 U
2-Butanone	10	17	40	22 UJ	22 UJ	31	29 U	53
1,1,1-Trichloroethane	10	14 U	27 U	22 U	22 U	25 U	29 U	40 U
Carbon Tetrachloride	10	14 U	27 U	22 U	22 U	25 U	29 U	40 U
Bromodichloromethane	10	14 U	27 U	22 U	22 U	25 U	29 U	40 U
1,2-Dichloropropane	10	14 U	27 U	22 U	22 U	25 U	29 U	40 U
cis-1,3-Dichloropropene	10	14 U	27 U	22 U	22 U	25 U	29 U	40 U
Trichloroethene	10	14 U	27 U	22 U	22 U	25 U	29 U	40 U
Dibromochloromethane	10	14 U	27 U	22 U	22 U	25 U	29 U	40 U
1,1,2-Trichloroethane	10	14 U	27 U	22 U	22 U	25 U	29 U	40 U
Benzene	10	14 U	27 U	22 U	22 U	25 U	29 U	40 U
trans-1,3-Dichloropropene	10	14 U	27 U	22 U	22 U	25 U	29 U	40 U
Bromoform	10	14 U	27 U	22 U	22 U	25 U	29 U	40 U
4-Methyl-2-pentanone	10	14 U	27 UJ	22 U	22 U	25 U	29 U	40 UJ
2-Hexanone	10	14 U	27 UJ	22 U	22 U	25 U	29 U	200 J
Tetrachloroethene	10	14 U	27 UJ	22 U	22 U	25 U	29 U	40 UJ
1,1,2,2-Tetrachloroethane	10	14 U	27 UJ	22 U	22 U	25 U	29 U	40 UJ
Toluene	10	14 U	27 UJ	22 U	22 U	25 U	29 U	40 UJ
Chlorobenzene	10	14 U	27 UJ	22 U	22 U	25 U	29 U	40 UJ
Ethylbenzene	10	14 U	27 UJ	22 U	22 U	25 U	29 U	40 UJ
Styrene	10	14 U	27 UJ	22 U	22 U	25 U	29 U	40 UJ
Xylene (total)	10	14 U	27 UJ	22 U	22 U	25 U	29 U	40 UJ
DILUTION FACTOR:		1.0	1.0	1.0	1.0	1.0	1.0	1.0
DATE SAMPLED:		12/19/95	12/19/95	12/19/95	12/19/95	12/19/95	12/19/95	12/19/95
DATE ANALYZED:		12/29/95	12/29/95	12/29/95	12/30/95	12/30/95	12/30/95	12/30/95
% MOISTURE:		29	63	55	55	60	65	75

*RESULTS FROM DILUTED ANALYSIS.

SITE: Roy Brothers Haulers
CASE: 24329 SDG: AKZ32
LABORATORY: EnviroSystems, Inc.

TABLE 2
VOLATILE AQUEOUS ANALYSIS
ug/L

SAMPLE NUMBER: AKZ39
SAMPLE LOCATION: RB-01
LABORATORY NUMBER: 95123102

COMPOUND	CRQL	
Chloromethane	10	10 UJ
Bromomethane	10	10 UJ
Vinyl Chloride	10	10 UJ
Chloroethane	10	10 UJ
Methylene Chloride	10	10 UJ
Acetone	10	10 UJ
Carbon Disulfide	10	10 UJ
1,1-Dichloroethene	10	10 UJ
1,1-Dichloroethane	10	10 UJ
1,2-Dichloroethene (Total)	10	10 UJ
Chloroform	10	7 J
1,2-Dichloroethane	10	10 UJ
2-Butanone	10	10 UJ
1,1,1-Trichloroethane	10	10 UJ
Carbon Tetrachloride	10	10 UJ
Bromodichloromethane	10	10 UJ
1,2-Dichloropropane	10	10 UJ
cis-1,3-Dichloropropene	10	10 UJ
Trichloroethene	10	10 UJ
Dibromochloromethane	10	10 UJ
1,1,2-Trichloroethane	10	10 UJ
Benzene	10	10 UJ
trans-1,3-Dichloropropene	10	10 UJ
Bromoform	10	10 UJ
4-Methyl-2-pentanone	10	10 UJ
2-Hexanone	10	10 UJ
Tetrachloroethene	10	10 UJ
1,1,2,2-Tetrachloroethane	10	10 UJ
Toluene	10	10 UJ
Chlorobenzene	10	10 UJ
Ethylbenzene	10	10 UJ
Styrene	10	10 UJ
Xylene (total)	10	10 UJ

DILUTION FACTOR: 1
DATE SAMPLED: 12/19/95
DATE ANALYZED: 12/29/95

*RESULT REPORTED FROM DILUTED ANALYSIS.

SITE: Roy Brothers Haulers
CASE: 24329 SDG: AKZ32
LABORATORY: EnviroSystems, Inc.

TABLE 3
SEMIVOLATILE SOIL ANALYSIS
ug/Kg

SAMPLE NUMBER:		AKZ32	AKZ33	AKZ34	AKZ35	AKZ36	AKZ37
SAMPLE LOCATION:		SD-01	SD-02	SD-03	SD-04	SD-05	SD-07
LABORATORY NUMBER:		95123095	95123096	95123097	95123098	95123099	95123100
COMPOUND	CRQL						
Phenol	330	460 U	890 U	730 U	730 U	820 U	940 U
bis(2-Chloroethyl) ether	330	460 U	890 U	730 U	730 U	820 U	940 U
2-Chlorophenol	330	460 U	890 U	730 U	730 U	820 U	940 U
1,3-Dichlorobenzene	330	460 U	890 U	730 U	730 U	820 U	940 U
1,4-Dichlorobenzene	330	460 U	890 U	730 U	730 U	820 U	940 U
1,2-Dichlorobenzene	330	460 U	890 U	730 U	730 U	820 U	940 U
2-Methylphenol	330	460 U	890 U	730 U	730 U	820 U	940 U
2,2'-Oxybis(1-chloropropane)	330	460 U	890 U	730 U	730 U	820 U	940 U
4-Methylphenol	330	460 U	890 U	730 U	730 U	820 U	940 U
N-Nitroso-di-n-propylamine	330	460 U	890 U	730 U	730 U	820 U	940 U
Hexachloroethane	330	460 U	890 U	730 U	730 U	820 U	940 U
Nitrobenzene	330	460 U	890 U	730 U	730 U	820 U	940 U
Isophorone	330	460 U	890 U	730 U	730 U	820 U	940 U
2-Nitrophenol	330	460 U	890 U	730 U	730 U	820 U	940 U
2,4-Dimethylphenol	330	460 U	890 U	730 U	730 U	820 U	940 U
bis(2-Chloroethoxy)methane	330	460 U	890 U	730 U	730 U	820 U	940 U
2,4-Dichlorophenol	330	460 U	890 U	730 U	730 U	820 U	940 U
1,2,4-Trichlorobenzene	330	460 U	890 U	730 U	730 U	820 U	940 U
Naphthalene	330	460 U	890 U	730 U	730 U	820 U	940 U
4-Chloroaniline	330	460 U	890 U	730 U	730 U	820 U	940 U
Hexachlorobutadiene	330	460 U	890 U	730 U	730 U	820 U	940 U
4-Chloro-3-methylphenol	330	460 U	890 U	730 U	730 U	820 U	940 U
2-Methylnaphthalene	330	460 U	890 U	730 U	730 U	820 U	940 U
Hexachlorocyclopentadiene	330	460 U	890 U	730 U	730 U	820 U	940 U
2,4,6-Trichlorophenol	330	460 U	890 U	730 U	730 U	820 U	940 U
2,4,5-Trichlorophenol	800	1100 U	2200 U	1800 U	1800 U	2000 U	2300 U
2-Chloronaphthalene	330	460 U	890 U	730 U	730 U	820 U	940 U
2-Nitroaniline	800	1100 U	2200 U	1800 U	1800 U	2000 U	2300 U
Dimethylphthalate	330	460 U	890 U	730 U	730 U	820 U	940 U
Acenaphthylene	330	460 U	890 U	730 U	730 U	820 U	940 U
2,6-Dinitrotoluene	330	460 U	890 U	760 U	760 U	820 U	940 U
3-Nitroaniline	800	1100 U	2200 U	1800 U	1800 U	2000 U	2300 U
Acenaphthene	330	460 U	890 U	730 U	730 U	820 U	940 U
2,4-Dinitrophenol	800	1100 U	2200 U	1800 U	1800 U	2000 U	2300 U
4-Nitrophenol	800	1100 U	2200 U	1800 U	1800 U	2000 U	2300 U
Dibenzofuran	330	460 U	890 U	730 U	730 U	820 U	940 U
2,4-Dinitrotoluene	330	460 U	890 U	730 U	730 U	820 U	940 U
Diethylphthalate	330	460 U	890 U	730 U	730 U	820 U	940 U
4-Chlorophenyl-phenylether	330	460 U	890 U	730 U	730 U	820 U	940 U
Fluorene	330	460 U	890 U	730 U	730 U	820 U	940 U
4-Nitroaniline	800	1100 U	2200 U	1800 U	1800 U	2000 U	2300 U
4,6-Dinitro-2-methylphenol	800	1100 U	2200 U	1800 U	1800 U	2000 U	2300 U
N-Nitrosodiphenylamine(1)	330	460 U	890 U	730 U	730 U	820 U	940 U
4-Bromophenyl-phenylether	330	460 U	890 U	730 U	730 U	820 U	940 U
Hexachlorobenzene	330	460 U	890 U	730 U	730 U	820 U	940 U
Pentachlorophenol	800	1100 U	2200 U	1800 U	1800 U	2000 U	2300 U
Phenanthrene	330	320 J	890 U	730 U	730 U	820 U	940 U
Anthracene	330	460 U	890 U	730 U	730 U	820 U	940 U
Carbazole	330	460 U	890 U	730 U	730 U	820 U	940 U
Di-n-butylphthalate	330	140 J	340 J	730 U	250 J	320 J	330 J
Fluoranthene	330	840	890 U	300 J	260 J	820 U	940 U
Pyrene	330	720	890 U	280 J	730 U	820 U	940 U
Butylbenzylphthalate	330	460 U	890 U	730 U	730 U	820 U	940 U
3,3'-Dichlorobenzidine	330	460 U	890 U	730 U	730 U	820 U	940 U
Benzo(a)anthracene	330	340 J	890 U	730 U	730 U	820 U	940 U
Chrysene	330	420 J	890 U	730 U	730 U	820 U	940 U
Bis(2-ethylhexyl)phthalate	330	200 J	890 U	6300 *	7500 *	820 U	290 J
Di-n-octylphthalate	330	460 U	890 U	730 U	730 U	820 U	940 U
Benzo(b)fluoranthene	330	360 J	890 U	280 J	260 J	820 U	940 U
Benzo(k)fluoranthene	330	400 J	890 U	730 U	730 U	820 U	940 U
Benzo(a)pyrene	330	240 J	890 U	730 U	730 U	820 U	940 U
Indeno(1,2,3-cd)pyrene	330	190 J	890 U	730 U	730 U	820 U	940 U
Dibenz(a,h)anthracene	330	460 U	890 U	730 U	730 U	820 U	940 U
Benzo(g,h,i)perylene	330	460 U	890 U	730 U	730 U	820 U	940 U
DILUTION FACTOR:		1	1	1	1	1	1
DATE SAMPLED:		12/19/95	12/19/95	12/19/95	12/19/95	12/19/95	12/19/95
DATE EXTRACTED:		12/27/95	12/27/95	12/27/95	12/27/95	12/27/95	12/27/95
DATE ANALYZED:		01/23/96	01/23/96	01/23/96	01/23/96	01/23/96	01/23/96
% MOISTURE		29	63	55	55	60	65

*RESULT REPORTED FROM DILUTED ANALYSIS.

SITE: Roy Brothers Haulers
CASE: 24329 SDG: AKZ32
LABORATORY: EnviroSystems, Inc.

TABLE 3
SEMIVOLATILE SOIL ANALYSIS
ug/Kg

SAMPLE NUMBER: AKZ38
SAMPLE LOCATION: SD-08
LABORATORY NUMBER: 95123101

COMPOUND	CRQL	
Phenol	330	1300 U
bis(2-Chloroethyl) ether	330	1300 U
2-Chlorophenol	330	1300 U
1,3-Dichlorobenzene	330	1300 U
1,4-Dichlorobenzene	330	1300 U
1,2-Dichlorobenzene	330	1300 U
2-Methylphenol	330	1300 U
2,2'-Oxybis(1-chloropropane)	330	1300 U
4-Methylphenol	330	1300 U
N-Nitroso-di-n-propylamine	330	1300 U
Hexachloroethane	330	1300 U
Nitrobenzene	330	1300 U
Isophorone	330	1300 U
2-Nitrophenol	330	1300 U
2,4-Dimethylphenol	330	1300 U
bis(2-Chloroethoxy)methane	330	1300 U
2,4-Dichlorophenol	330	1300 U
1,2,4-Trichlorobenzene	330	1300 U
Naphthalene	330	1300 U
4-Chloroaniline	330	1300 U
Hexachlorobutadiene	330	1300 U
4-Chloro-3-methylphenol	330	1300 U
2-Methylnaphthalene	330	1300 U
Hexachlorocyclopentadiene	330	1300 U
2,4,6-Trichlorophenol	330	1300 U
2,4,5-Trichlorophenol	800	3200 U
2-Chloronaphthalene	330	1300 U
2-Nitroaniline	800	3200 U
Dimethylphthalate	330	1300 U
Acenaphthylene	330	1300 U
2,6-Dinitrotoluene	330	1300 U
3-Nitroaniline	800	3200 U
Acenaphthene	330	1300 U
2,4-Dinitrophenol	800	3200 U
4-Nitrophenol	800	3200 U
Dibenzofuran	330	1300 U
2,4-Dinitrotoluene	330	1300 U
Diethylphthalate	330	1300 U
4-Chlorophenyl-phenylether	330	1300 U
Fluorene	330	1300 U
4-Nitroaniline	800	3200 U
4,6-Dinitro-2-methylphenol	800	3200 U
N-Nitrosodiphenylamine(1)	330	1300 U
4-Bromophenyl-phenylether	330	1300 U
Hexachlorobenzene	330	1300 U
Pentachlorophenol	800	3200 U
Phenanthrene	330	1300 U
Anthracene	330	1300 U
Carbazole	330	1300 U
Di-n-butylphthalate	330	1300 U
Fluoranthene	330	1300 U
Pyrene	330	1300 U
Butylbenzylphthalate	330	1300 U
3,3'-Dichlorobenzidine	330	1300 U
Benzo(a)anthracene	330	1300 U
Chrysene	330	1300 U
Bis(2-ethylhexyl)phthalate	330	460 J
Di-n-octylphthalate	330	1300 U
Benzo(b)fluoranthene	330	1300 U
Benzo(k)fluoranthene	330	1300 U
Benzo(a)pyrene	330	1300 U
Indeno(1,2,3-cd)pyrene	330	1300 U
Dibenz(a,h)anthracene	330	1300 U
Benzo(g,h,i)perylene	330	1300 U

DILUTION FACTOR: 1
DATE SAMPLED: 12/19/95
DATE EXTRACTED: 12/27/95
DATE ANALYZED: 01/23/96
% MOISTURE: 75

*RESULT REPORTED FROM DILUTED ANALYSIS.

SITE: Roy Brothers Haulers
CASE: 24329 SDG: AKZ32
LABORATORY: EnviroSystems, Inc.

TABLE 4
SEMIVOLATILE WATER ANALYSIS
ug/L

SAMPLE NUMBER: AKZ39
SAMPLE LOCATION: RB-01
LABORATORY NUMBER: 95123102

COMPOUND	CRQL	
Phenol	10	10 U
bis(2-Chloroethyl) ether	10	10 U
2-Chlorophenol	10	10 U
1,3-Dichlorobenzene	10	10 U
1,4-Dichlorobenzene	10	10 U
1,2-Dichlorobenzene	10	10 U
2-Methylphenol	10	10 U
2,2'-Oxybis(1-chloropropane)	10	10 U
4-Methylphenol	10	10 U
N-Nitroso-di-n-propylamine	10	10 U
Hexachloroethane	10	10 U
Nitrobenzene	10	10 U
Isophorone	10	10 U
2-Nitrophenol	10	10 U
2,4-Dimethylphenol	10	10 U
bis(2-Chloroethoxy)methane	10	10 U
2,4-Dichlorophenol	10	10 U
1,2,4-Trichlorobenzene	10	10 U
Naphthalene	10	10 U
4-Chloroaniline	10	10 U
Hexachlorobutadiene	10	10 U
4-Chloro-3-methylphenol	10	10 U
2-Methylnaphthalene	10	10 U
Hexachlorocyclopentadiene	10	10 U
2,4,6-Trichlorophenol	10	10 U
2,4,5-Trichlorophenol	25	25 U
2-Chloronaphthalene	10	10 U
2-Nitroaniline	25	25 U
Dimethylphthalate	10	10 U
Acenaphthylene	10	10 U
2,6-Dinitrotoluene	10	10 U
3-Nitroaniline	25	25 U
Acenaphthene	10	10 U
2,4-Dinitrophenol	25	25 U
4-Nitrophenol	25	25 U
Dibenzofuran	10	10 U
2,4-Dinitrotoluene	10	10 U
Diethylphthalate	10	10 U
4-Chlorophenyl-phenylether	10	10 U
Fluorene	10	10 U
4-Nitroaniline	25	25 U
4,6-Dinitro-2-methylphenol	25	25 U
N-Nitrosodiphenylamine(1)	10	10 U
4-Bromophenyl-phenylether	10	10 U
Hexachlorobenzene	10	10 U
Pentachlorophenol	25	25 U
Phenanthrene	10	10 U
Anthracene	10	10 U
Carbazole	10	10 U
Di-n-butylphthalate	10	10 U
Fluoranthene	10	10 U
Pyrene	10	10 U
Butylbenzylphthalate	10	10 U
3,3'-Dichlorobenzidine	10	10 U
Benzo(a)anthracene	10	10 U
Chrysene	10	10 U
Bis(2-ethylhexyl)phthalate	10	10 U
Di-n-octylphthalate	10	10 U
Benzo(b)fluoranthene	10	10 U
Benzo(k)fluoranthene	10	10 U
Benzo(a)pyrene	10	10 U
Indeno(1,2,3-cd)pyrene	10	10 U
Dibenz(a,h)anthracene	10	10 U
Benzo(g,h,i)perylene	10	10 U

DILUTION FACTOR: 1.0
DATE SAMPLED: 12/19/96
DATE EXTRACTED: 12/26/96
DATE ANALYZED: 01/22/96

*RESULT REPORTED FROM DILUTED ANALYSIS

Site: Roy Brothers Haulers
Case: 24329 SDG: AKZ32
LABORATORY: EnviroSystems, Inc.

TABLE 5
PESTICIDE/POLYCHLORINATED BIPHENYL SOIL ANALYSIS
ug/kg

SAMPLE NUMBER:	AKZ32	AKZ33	AKZ34	AKZ35	AKZ36	AKZ37	AKZ38	
SAMPLE LOCATION:	SD-01	SD-02	SD-03	SD-04	SD-05	SD-07	SD-08	
LABORATORY NUMBER:	95123095	95123096	95123097	95123098	95123099	95123100	95123101	
COMPOUND	CRQL							
alpha-BHC	1.7	2.4 UJ	4.6 U	3.8 U	3.8 U	4.2 U	4.9 U	6.8 U
beta-BHC	1.7	2.4 UJ	4.6 U	3.8 U	3.8 U	4.2 U	4.9 U	6.8 U
delta-BHC	1.7	R	R	R	R	R	R	R
gamma-BHC(Lindane)	1.7	2.4 UJ	4.6 U	3.8 U	3.8 U	4.2 U	4.9 U	6.8 U
Heptachlor	1.7	2.4 UJ	4.6 U	3.8 U	3.8 U	4.2 U	4.9 U	6.8 U
Aldrin	1.7	2.4 UJ	4.6 U	3.8 U	3.8 U	4.2 U	4.9 U	6.8 U
Heptachlor Epoxide	1.7	2.4 UJ	4.6 U	3.8 U	3.8 U	4.2 U	4.9 U	6.8 U
Endosulfan I	1.7	2.4 UJ	4.6 U	4.4 U	3.8	4.2 U	4.9 U	6.8 U
Dieldrin	3.3	4.6 UJ	8.9 U	7.3 U	3.3 J	8.2 U	9.4 U	13 U
4,4'-DDE	3.3	7.0 J	2.8 J	8.7	7.8	3.2 J	9.4 U	13 U
Endrin	3.3	4.6 UJ	8.9 U	7.3 U	7.3 U	8.2 U	9.4 U	13 U
Endosulfan II	3.3	4.6 UJ	8.9 U	7.3 U	7.3 U	8.2 U	9.4 U	13 U
4,4'-DDD	3.3	9.4 J	2.7 J	21 J	20	8.2 U	9.4 U	13 U
Endosulfan Sulfate	3.3	4.6 UJ	8.9 U	7.3 U	7.3 U	8.2 U	9.4 U	13 U
4,4'-DDT	3.3	1.8 J	8.9 U	7.3 U	7.3 U	8.2 U	9.4 U	13 U
Methoxychlor	17	24 UJ	46 U	38 U	38 U	42 U	49 U	68 U
Endrin Ketone	3.3	4.6 UJ	8.9 U	7.3 U	7.3 U	8.2 U	9.4 U	13 U
Endrin-Aldehyde	3.3	4.6 UJ	8.9 U	7.3 U	7.3 U	8.2 U	9.4 U	13 U
alpha-Chlordane	1.7	R	4.6 U	4.1	3.6 J	4.2 U	4.9 U	6.8 U
gamma-Chlordane	1.7	1.0 J	4.6 U	R	R	4.2 U	4.9 U	6.8 U
Toxaphene	170	240 UJ	460 U	380 U	380 U	420 U	490 U	680 U
Aroclor-1016	33	46 UJ	89 U	73 U	73 U	82 U	94 U	130 U
Aroclor-1221	67	94 UJ	180 U	150 U	150 U	170 U	190 U	270 U
Aroclor-1232	33	46 UJ	89 U	73 U	73 U	82 U	94 U	130 U
Aroclor-1242	33	46 UJ	89 U	73 U	73 U	82 U	94 U	130 U
Aroclor-1248	33	46 UJ	89 U	73 U	73 U	82 U	94 U	130 U
Aroclor-1254	33	46 UJ	89 U	130	120	82 U	94 U	130 U
Aroclor-1260	33	46 UJ	89 U	73 U	73 U	82 U	94 U	130 U
DILUTION FACTOR:	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
DATE SAMPLED:	12/19/95	12/19/95	12/19/95	12/19/95	12/19/95	12/19/95	12/19/95	12/19/95
DATE EXTRACTED:	12/29/95	12/29/95	12/29/95	12/29/95	12/29/95	12/29/95	12/29/95	12/29/95
DATE ANALYZED:	01/22/96	01/22/96	01/22/96	01/22/96	01/22/96	01/22/96	01/22/96	01/22/96
% MOISTURE:	29	63	55	55	60	65	75	

* - RESULT REPORTED FROM DILUTED ANALYSIS.

Site: Roy Brothers Haulers
Case: 24329 SDG: AKZ32
LABORATORY: EnviroSystems, Inc.

TABLE 6
PESTICIDE/POLYCHLORINATED BIPHENYL AQUEOUS ANALYSIS
ug/L

SAMPLE NUMBER: AKZ39
SAMPLE LOCATION: RB-01
LABORATORY NUMBER: 95123102

COMPOUND	CRQL	
alpha-BHC	0.05	0.050 U
beta-BHC	0.05	0.050 U
delta-BHC	0.05	R
gamma-BHC(Lindane)	0.05	0.050 U
Heptachlor	0.05	0.050 U
Aldrin	0.05	0.050 U
Heptachlor Epoxide	0.05	0.050 U
Endosulfan I	0.05	0.050 U
Dieldrin	0.10	0.10 U
4,4'-DDE	0.10	0.10 U
Endrin	0.10	0.10 U
Endosulfan II	0.10	0.10 U
4,4'-DDD	0.10	0.10 U
Endosulfan Sulfate	0.10	0.10 U
4,4'-DDT	0.10	0.10 U
Methoxychlor	0.5	0.50 U
Endrin Ketone	0.10	0.10 U
Endrin-Aldehyde	0.10	0.10 U
alpha-Chlordane	0.05	0.050 U
gamma-Chlordane	0.05	0.050 U
Toxaphene	5.0	5.0 U
Aroclor-1016	1.0	1.0 U
Aroclor-1221	2.0	2.0 U
Aroclor-1232	1.0	1.0 U
Aroclor-1242	1.0	1.0 U
Aroclor-1248	1.0	1.0 U
Aroclor-1254	1.0	1.0 U
Aroclor-1260	1.0	1.0 U

DILUTION FACTOR: 1.0
DATE SAMPLED: 12/19/95
DATE EXTRACTED: 12/26/95
DATE ANALYZED: 01/22/96

* - RESULT REPORTED FROM DILUTED ANALYSIS.

SITE: Roy Brothers Haulers

CASE: 24329 SDG: MAHX25
LABORATORY: Inchcape Testing Services

TABLE 1
INORGANIC SOIL ANALYSES

SAMPLE NUMBER:	MAHX25	MAHX26	MAHX27	MAHX28	MAHX29	MAHX30	MAHX31
SAMPLE LOCATION:	SD-01	SD-02	SD-03	SD-04	SD-05	SD-06	SD-07
LABORATORY NUMBER:	283463	283464	28365	283466	283467	283468	283469
PERCENT SOLIDS:	67.7	36.0	45.4	45.2	44.6	36.9	32.1

INORGANIC ELEMENTS		INSTRUMENT DETECTION LIMITS (mg/kg)								CONTRACT DETECTION LIMITS (mg/kg)
ALUMINUM	P	2.26	4000	9640	9980	10300	8110	7200	8990	40
ANTIMONY	P	0.50	UJ	UJ	UJ	UJ	UJ	UJ	UJ	12
ARSENIC	P	0.56	6.4	5.0	21.9	18.6	2.6	2.1	4.3	2
BARIUM	P	1.08	19.0	33.1	33.7	32.8	30.1	22.6	38.5	40
BERYLLIUM	P	0.02	0.21 U	1.1	1.2	1.2	0.51	0.62	1.3	1
CADMIUM	P	0.06	1.7	0.22	0.63	0.16	0.17	0.24	0.33	1
CALCIUM	P	28.56	935	3650	1990	1870	3330	3810	3510	1000
CHROMIUM	P	0.12	16.1	16.6	48.3	39.5	15.5	12.5	15.9	2
COBALT	P	0.28	4.3	3.0	1.5	1.5	3.7	1.7	2.6	10
COPPER	P	0.20	10.4	4.1	4.3	4.0	3.9	2.0 U	5.8	5
IRON	P	2.12	8510	5380	7990	7440	4030	2300	4900	20
LEAD	P	0.32	58.6	22.1	28.6	24.7	20.2	11.7	24.0	0.6
MAGNESIUM	P	27.36	1500	816	681	696	1280	714	586	1000
MANGANESE	P	0.10	137	58.2	52.2	51.9	468	63.8	72.5	3
MERCURY	CV	0.05	0.05 J	0.09 J	0.10 J	0.09 J	R	R	R	0.1
NICKEL	P	0.28	8.2	5.7	4.5	4.4	7.1	3.6	6.5	8
POTASSIUM	P	27.28	520	223	322	293	303	197	207	1000
SELENIUM	P	0.44	UJ	1.8 J	1.2 J	UJ	UJ	1.4 J	2.5 J	1
SILVER	P	0.14	0.21 UJ	0.38 U	0.29 U	0.31 U	0.31 U	0.33 U	0.39 U	2
SODIUM	P	37.38	74.4 UJ	109 U	702 U	722 U	166 U	318 U	103 U	1000
THALLIUM	P	0.46	0.59 UJ	1.3 U	0.95 U	1.0 U	1.0 U	1.1 U	1.3 U	2
VANADIUM	P	0.32	10.0	13.7	12.4	12.2	13.2	8.1	13.0	10
ZINC	P	0.14	387	16.3	33.4	28.4	18.4	5.3	24.0	4
CYANIDE	AS	0.50	R	R	R	R	R	NA	R	0.5

ANALYTICAL METHOD
F - FURNACE
P - ICP/FLAME AA
CV - COLD VAPOR
AS - SEMI AUTOMATED
SPECTROPHOTOMETRIC

NOTE: J - QUANTITATION IS ESTIMATED DUE TO LIMITATIONS IDENTIFIED
IN THE QUALITY CONTROL REVIEW (DATA REVIEW).
-- VALUE IS NON-DETECTED
U - VALUE IS NON-DETECTED AND DETECTION LIMIT IS RAISED.
UJ - VALUE IS NON-DETECTED AND DETECTION LIMIT IS ESTIMATED.
R - VALUE IS REJECTED.
NA - NOT ANALYZED

WET WEIGHTS OF SAMPLES

1.00g for AA & ICP - FV=200 mls
0.20g for Hg - FV = 100 mls
5.00g for CN - FV = 250 mls

SITE: Roy Brothers Haulers

CASE: 24329 SDG: MAHX25
LABORATORY: Inchcape Testing Services

TABLE 1
INORGANIC SOIL ANALYSES

SAMPLE NUMBER: MAHX32
SAMPLE LOCATION: SD-08
LABORATORY NUMBER: 283470
PERCENT SOLIDS: 24.8

INORGANIC ELEMENTS		INSTRUMENT DETECTION LIMITS (mg/kg)	CONTRACT DETECTION LIMITS (mg/kg)
ALUMINUM	P	2.26	40
ANTIMONY	P	0.50	12
ARSENIC	P	0.56	2
BARIUM	P	1.08	40
BERYLLIUM	P	0.02	1
CADMIUM	P	0.06	1
CALCIUM	P	28.56	1000
CHROMIUM	P	0.12	2
COBALT	P	0.28	10
COPPER	P	0.20	5
IRON	P	2.12	20
LEAD	P	0.32	0.6
MAGNESIUM	P	27.36	1000
MANGANESE	P	0.10	3
MERCURY	CV	0.05	0.1
NICKEL	P	0.28	8
POTASSIUM	P	27.28	1000
SELENIUM	P	0.44	1
SILVER	P	0.14	2
SODIUM	P	37.38	1000
THALLIUM	P	0.46	2
VANADIUM	P	0.32	10
ZINC	P	0.14	4
CYANIDE	AS	0.50	0.5

ANALYTICAL METHOD
F - FURNACE
P - ICP/FLAME AA
CV - COLD VAPOR
AS - SEMI AUTOMATED
SPECTROPHOTOMETRIC

NOTE: J - QUANTITATION IS ESTIMATED DUE TO LIMITATIONS IDENTIFIED
IN THE QUALITY CONTROL REVIEW (DATA REVIEW).
-- VALUE IS NON-DETECTED
U - VALUE IS NON-DETECTED AND DETECTION LIMIT IS RAISED.
UJ - VALUE IS NON-DETECTED AND DETECTION LIMIT IS ESTIMATED.
R - VALUE IS REJECTED.
NA - NOT ANALYZED
WET WEIGHTS OF SAMPLES

1.00g for AA & ICP - FV=200 mls
0.20g for Hg - FV = 100 mls
5.00g for CN - FV = 250 mls

SITE: Roy Brothers Haulers

CASE: 24329 SDG: MAHX25
LABORATORY: Inchcape Testing Services

SAMPLE NUMBER: MAHX33
SAMPLE LOCATION: RB-01
LABORATORY NUMBER: 283471

TABLE 2
INORGANIC WATER ANALYSIS
ug/L

INORGANIC ELEMENTS		INSTRUMENT DETECTION LIMITS (ug/L)	[Note: seven columns of results across]		CONTRACT DETECTION LIMITS (ug/L)
ALUMINUM	P	11.3	13.4	UJ	200
ANTIMONY	P	2.5	--		60
ARSENIC	P	2.8	--		10
BARIUM	P	5.4	--		200
BERYLLIUM	P	0.1	0.40	U	5
CADMIUM	P	0.3	--		5
CALCIUM	P	142.8	--		5000
CHROMIUM	P	0.6	--		10
COBALT	P	1.4	--		50
COPPER	P	1.0	2.3		25
IRON	P	10.6	16.1	UJ	100
LEAD	P	1.6	--		3
MAGNESIUM	P	136.8	--		5000
MANGANESE	P	0.5	--		15
MERCURY	CV	0.10	R		0.2
NICKEL	P	1.4	--		40
POTASSIUM	P	136.4	--		5000
SELENIUM	F	2.2	--		5
SILVER	P	0.7	--		10
SODIUM	P	186.9	--		5000
THALLIUM	P	2.3	3.1	UJ	10
VANADIUM	P	1.6	--		50
ZINC	P	0.7	4.5	UJ	20
CYANIDE	AS	10.0	R		10

ANALYTICAL METHOD
F - FURNACE
P - ICP/FLAME AA
CV - COLD VAPOR
AS - SEMI AUTOMATED
SPECTROPHOTOMETRIC

NOTE: J - QUANTITATION IS ESTIMATED DUE TO LIMITATIONS IDENTIFIED
IN THE QUALITY CONTROL REVIEW (DATA REVIEW).
-- VALUE IS NON-DETECTED
U - VALUE IS NON-DETECTED AND DETECTION LIMIT IS RAISED.
UJ - VALUE IS NON-DETECTED AND DETECTION LIMIT IS ESTIMATED.
R - VALUE IS REJECTED.

VOLUMES USED IN PREPARING SAMPLE FOR ANALYSIS:

Hg 0.10 L, AA & ICP 0.20 L, CN 0.25 L.



Roy F. Weston, Inc.
Federal Programs Division
217 Middlesex Turnpike
Burlington, Massachusetts 01803-3308
617-229-6430 • Fax 617-272-3619

SUPERFUND TECHNICAL ASSESSMENT AND RESPONSE TEAM
EPA CONTRACT 68-W5-0009

11 July 1996
11098-011-001-1055-70
DC No. A-456

Ms. Sharon M. Hayes
Task Monitor
U.S. EPA-New England
Superfund Support Section (HBS)
John F. Kennedy Federal Building
Boston, MA 02203-2211

Subject: Final Site Inspection Prioritization Report
Roy Bros Haulers
Billerica, Massachusetts
CERCLIS No. MAD009870643
TDD No. 95-06-0006

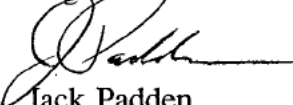
Dear Ms. Hayes:

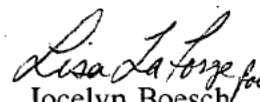
Enclosed is one copy of the Final Site Inspection Prioritization Report for the Roy Bros Haulers property in Billerica, Massachusetts. The U.S. Environmental Protection Agency comments regarding the contents of the Draft Site Inspection Prioritization Report have been incorporated. Two copies of the final report have been sent to the Massachusetts Department of Environmental Protection in Boston. The Final Site Inspection Prioritization Report was prepared in response to TDD No. 95-06-0006.

Please contact the undersigned at (617) 229-6430 if you have any questions regarding this report.

Very truly yours,

ROY F. WESTON, INC.
Region I-START


Jack Padden
Site Leader


Jocelyn Boesch
Project Leader

jap
Enclosure



Roy F. Weston, Inc.
Federal Programs Division
217 Middlesex Turnpike
Burlington, Massachusetts 01803-3308
617-229-6430 • Fax 617-272-3619

SUPERFUND TECHNICAL ASSESSMENT AND RESPONSE TEAM
EPA CONTRACT 68-W5-0009

11 July 1996
11098-011-001-1055-70
DC No. A-456

Mr. Harish Panchal
Bureau of Waste Site Cleanup
Department of Environmental Protection
One Winter Street
Boston, MA 02108

Subject: Final Site Inspection Prioritization Report
Roy Bros Haulers
Billerica, Massachusetts
CERCLIS No. MAD0009870643
TDD No. 95-06-0006

Dear Panchal:

Enclosed are two copies of the Final Site Inspection Prioritization Report for the Roy Bros Haulers property in Billerica, Massachusetts. U.S. Environmental Protection Agency (EPA-New England), Office of Site Remediation and Restoration comments regarding the contents of the Draft Site Inspection Prioritization Report have been incorporated.

Please contact the undersigned at (617) 229-6430 if you have any questions regarding this report.

Very truly yours,

ROY F. WESTON, INC.
Region I START

Jack Padden
Site Leader

Jocelyn Boesch
Project Leader

jap

Enclosure

cc: S. Hayes (EPA Task Monitor)
N. Smith (EPA Site Assessment Manager)



Roy F. Weston, Inc.
Federal Programs Division
217 Middlesex Turnpike
Burlington, Massachusetts 01803-3308
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SUPERFUND TECHNICAL ASSESSMENT AND RESPONSE TEAM
EPA CONTRACT 68-W5-0009

15 January 1997
11098-011-001-1055-70
DC No. A-1014

Mr. Leo Roy
Roy Bros Haulers
764 Boston Road
Billerica, Massachusetts 01866

Subject: Final Site Inspection Prioritization
Roy Bros Haulers
Billerica, Massachusetts
CERCLIS No. MAD009870643
TDD No. 95-06-0006

Dear Mr. Roy:

The Roy F. Weston, Inc. (WESTON®), Superfund Technical Assessment and Response Team (START) has completed the Site Inspection Prioritization (SIP) Report of the Roy Bros Haulers under our work assignment with the U.S. Environmental Protection Agency (EPA-New England), Office of Site Remediation and Restoration. Enclosed is a copy of the Final SIP Report for your files. A copy of this report was also sent to the EPA-New England and the Department of Environmental Protection (MA DEP).

Please contact the undersigned at (617) 229-6430 or Ms. Nancy Smith (EPA-New England Site Assessment Manager) at (617) 573-9697 if you have any questions regarding this report.

Very truly yours,

ROY F. WESTON, INC.
Region I START

Jack Padden
Site Leader

Jocelyn Boesch
Project Leader

JAP:jap
Enclosure

cc: S. Hayes (EPA Task Monitor)

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